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CITY DOCUMENTS

—OF THE—

CITY OF LOWELL

MASSACHUSETTS

—FOR THE—

YEAR 1909-1910.



LOWELL, MASS.
COURIER-CITIZEN COMPANY, PRINTERS
1910

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EXTRACT FROM THE ORDINANCES OF LOWELL.

CHAPTER VIII.—CITY DOCUMENTS.

SECTION 5. All City Documents (except the Rules and Regulations for the Government of the Police and Fire Departments) shall be printed in pamphlet form of the size of the Annual Report of the School Committee.

SECTION 6. All City Documents shall be bound together in one volume, under the direction of the City Clerk, and three or more copies shall be placed in the City Library, and one copy in the library of the Middlesex Mechanics' Association, one copy shall be sent to each City of the Commonwealth, to the library of the Harvard College, the Public Library of Boston, the State Library, the Smithsonian Institute at Washington, and the Old Residents' Historical Association of Lowell.

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CONTENTS.

1. Inaugural Address of His Honor, John F. Meehan, Mayor, to the City Council, January, 1910.
2. Municipal Register, containing Rules and Orders of the City Council, and a list of the Government and Officers of the City of Lowell for 1910.
3. Eighty-fourth Annual Report of the School Committee of Lowell, together with Forty-sixth Annual Report of the Superintendent of Schools, 1909.
4. Auditor's Seventy-fourth Annual Report of the Receipts and Expenditures of the City of Lowell, together with the Treasurer's Account, and the Account of the Commissioners of Sinking Fund, for the financial year ending December 31, 1909.
5. Thirty-seventh Annual Report of the Lowell Water Board, and Reports of the Superintendent of Water Works and the City Engineer to the Water Board for 1909.
6. Report of the Committee on Appropriations, 1910.
7. Reports of the Births, Marriages and Deaths, 1909.
8. Report of the Board of Health, 1909.

9. Report of Superintendent of Streets, 1909.
10. Report of the Chief Engineer of the Fire Department, 1909.
11. Report of the Superintendent of Street Lights, 1909.
12. Park Commissioners, Seventh Annual Report, December 31, 1909.
13. Report of the Trustees of the City Library for 1909.
14. Report of the City Solicitor for the year ending 1909-10.
15. List of Jurors for the year 1910.
16. Report of Buildings Department for year 1909.
17. Report of the Inspector of Milk for year 1909.

INAUGURAL ADDRESS

— OF —

HON. JOHN F. MEEHAN

MAYOR OF LOWELL

1910



LOWELL, MASS.
THE LAWLER PRINTING COMPANY
1910



Inaugural Address

of

Hon. John F. Meehan

GENTLEMEN OF THE CITY COUNCIL:

Today we assume the grave responsibilities of conducting the affairs of the City for the ensuing year.

At this hour, with the duties incident to the honorable position to which I have been chosen confronting me, I may be pardoned if I express to my fellow citizens my deep appreciation of their confidence.

Highly sensible of the great honor the chief magistracy of the City confers, its glamor fails to hide the solemn injunction that ever accompanies it, namely, to regard it as a sacred trust to be used and exercised for the benefit of all the people.

Nor is this injunction confined to the first servant of the municipality, it is directed with equal force to every member of the City Council.

There is no tenable reason, making allowance for variance of conditions, why the affairs of the City should not be managed with the same scrupulous care as are those of private corporations and interests.

To our keeping, temporarily, is intrusted the money of the taxpayers, and when by omission or commission we injudiciously permit it to be applied to the furtherance of any municipal project, enterprise or purpose, we

prove recreant to the confidence reposed in us and violaters of the oath of office administered today.

All the devices of cunning and avarice may be used as weapons during the year to thwart our efforts and batter down the armor of civic righteousness with which we are clothed this morning; but, if we have faith in ourselves and in an ever living wholesome, public sentiment we can make no mistake, commit no error, perpetrate no wrong.

During the year it may become my duty to call your attention specifically to matters relating to City affairs. At the present time I must, in a general way, submit to you the condition of the different departments as gleaned from those at the head.

TAX RATE

Happily, the past year has witnessed a material reduction of the tax rate, but the conditions that made it possible were not brought about by our immediate predecessors. Though I am satisfied they were anxious and earnest in most instances to cleave to the line that marks reasonable expenditure from financial waste.

The inheritance tax law turned over last year to the City for taxation \$847,150, the corporation tax law gave to the City \$105,000. and these two items were principally responsible for the reduction of eighty cents in the tax rate.

The increase in personal property last year was.....	\$1,795,100.33
In real estate.....	704,410.00
Making a total of.....	<u>\$2,499,510.33</u>
The tax on this amount at the prevailing rate was	48,990.40
which reduced the tax rate to the extent of .....	.63

The increase of the number of polls over the number assessed in 1908 was.....	1,482
which at two dollars each amounted to.....	2,964.00
causing a reduction in the tax rate of .....	.04
The reduction of the State tax from the figures of the previous year amounted to	21,930.00
making a reduction in the tax rate of .....	.28
In 1908 the City paid an armory tax of	1,032.50
In 1909 there was no such tax to be paid, causing a reduction in the tax rate of .....	.01
The overlayings in 1909 were	6,013.20
less than 1908, representing a reduction in the tax rate of .....	.08
Making a total reduction in the tax rate from that of 1908 of	1.04
Two items had a tendency to increase the tax rate of 1909 over that of 1908, the first being an increase of in appropriations, raising the rate to the extent of	11,300.00
	.14
The second being the County tax which was.....	8,479.47
greater in the year 1909 than in the year 1908 which would increase the tax rate .....	.10
making a total increase of.....	.24
A total increase of.....	.24
deducted from a total decrease of.....	1.04
leaves a net decrease in the tax rate of .....	.80

A tax rate just as small as is consistent with health, comfort and protection is desired by all and should be our aim.

But the municipal luxury of yesterday is the necessity of today and in our anxiety for a lower tax rate let us not mistake parsimony for economy.

A municipality, no more than an individual, can stand still and make progress. Honesty, alertness, energy and enterprise on the part of officials and citizens will give us prosperity at home, character abroad and a tax rate small enough to satisfy everyone who takes pride in our City's advancement.

CITY DEBT

Ordinary City Debt January 1, 1909.....	\$2,475,038.40	
Borrowed during the year.....	174,900.00	
Total	\$2,649,938.40	
Paid during the year 1909	283,734.20	
		\$2,366,204.20
Water Debt January 1, 1909	\$1,121,600.00	
Paid during the year	15,200.00	
Total Water Debt December 31, 1909		\$1,106,400.00
Total City Debt December 31, 1909...		\$3,472,604.20
Ordinary City Debt December 31, 1909 ...	\$2,366,204.20	
Sinking Funds for payment of same	375,958.10	
		\$1,099,246.10
Water Debt December 31, 1909	\$1,106,400.00	
Sinking Funds for the payment of same	584,580.62	
Net Water Debt December 31, 1909 ...		521,819.38
Total Net Debt December 31, 1909		\$2,512,065.48
Total Net Debt December 31, 1908	\$2,701,109.40	
Total Net Debt December 31, 1909	2,512,065.48	
Decrease in City Debt during 1909....		\$189,043.92
Net Ordinary City Debt December 31, 1908	\$2,129,742.26	
Net Ordinary City Debt December 31, 1909	1,990,046.10	
Decrease in Net Ordinary City Debt..		\$139,696.15

LIMIT OF INDEBTEDNESS

Total City Debt December 31, 1909		\$3,472,604.20
Deduct Water Loans	\$1,106,400.00	
Deduct by Legislation	800,000.00	
		\$1,906,400.00
City Debt as it relates to limit of indebtedness.....		\$1,566,204.20
Limit of Municipal Debt of 1910, 2½% of average valuation for the last three years	\$77,079,032.22=	\$1,926,975.81
City Debt which relates to limit Dec. 31, 1909		1,566,204.20
Distance from limit Dec. 31, 1909.....		\$360,771.61
Distance from limit Dec. 31, 1908		213,708.79
Increase in distance from limit		\$147,062.82

NEW INDUSTRIES

Lowell is justly famed for the character and quality of her industries. Whatever Lowell is she owes to her industries, and whatever we may be able to do toward fostering cordial relations between capital and labor should not escape our notice.

We need more industries and there is little doubt of success in this direction if we honestly co-operate with the Board of Trade, a civic organization that in the past few years has done so much to bring desirable industries to our City and give her staple advertising throughout the country.

With new industries a broader significance will be given to those words familiar to all, so fitly chosen for our City seal:

“It has writ in fabric and steel and wood,
Art is the handmaid of human good.”

PUBLIC SANITARY

Your attention is called to the crying necessity of a public sanitary somewhere near the junction of our two principal business streets. Our City is woefully lacking in such accommodation, that counts so much for health to men, women, and children, and I earnestly recommend its establishment.

BOARD OF CHARITIES

The Legislative Act of 1905, accepted by the people, creating the Board of Charities, was believed to be ample

remedy for all the shortcomings and extravagances of the old system of caring for our worthy poor. Actual experience does not justify this belief if the criticisms and charges of those in authority and in a position to know since January, 1909, have any basis of truth. One thing is true, however, those of our community who endured the storm and stress of life's battle until physical nature refused longer to respond, or through one cause or another are forced to ask aid at our hands, are entitled to an asylum in keeping and abreast of the standard of a modern, dignified, humane, and enlightened municipality, and, so far as in me lies, I shall see to it that such a standard is attained and not departed from during my term of office, and I ask your co-operation in this most laudable work.

PUBLIC BATHS

In one or more places in our City there should be public baths, accessible the year round. The knowledge that many, very many of the persons engaged in the mills and shops of the City live in tenements with no bathing facilities, ought to awaken us to the danger that menaces health from this source.

Health authorities are all agreed that uncleanness is the most fruitful source of disease. Some years have passed since the State in her wisdom, with an eye directed solely for the public good, first established a public bath house, they now extend in many directions, under State supervision, and are patronized by hundreds of thousands from different sections at a nominal price.

Following the example of the Commonwealth, Boston has public bath houses in operation the entire year.

Other cities are recognizing the value of public baths and the day is not far distant when they will be as firm a fixture in the affairs of cities of any size in our State as parks, commons, and playgrounds are now.

I recommend the appointment of a joint committee to consider the feasibility of public baths with instructions to report back not later than three months from the date of appointment.

PUBLIC PARKS

Our parks continue in a high degree of efficiency and the presence of thousands on the commons and in the parks on Sundays and evenings during the Summer months is gratifying reward to all who have helped in the development of this department.

Tired nature instinctively turns for rest toward some pleasing and quiet spot, free from the dust, the noise, and the heat of the busy street, and such places, in attractive condition, our City offers to the public.

Still there is room for more parks, more breathing spots, more playgrounds, and Lowell will not have done her full duty until she can boast of as many and beautiful parks as any other city of like size and make up in the Country.

POLICE DEPARTMENT

Our police department, in my opinion, is one of the best in the State. Very little serious crime is committed here.

In the District Attorney's office, Lowell's police have the reputation of standing second to none. We have all, at one time or another when vast throngs crowded our streets and ways, have witnessed some policeman by a wave of the hand relieve the congestion, reminding one of the "London Bobby" who is absolute master of the London Street.

Courteous, obliging, fearless, and obedient, our police officers are rightly looked upon as guardians of the peace.

Much credit is due to our police department for the immunity from serious crime we enjoy, but no little credit is also due to our local court, known all over the country for the even handed justice meted out.

While endeavoring to economize and retrench in this department, as in every other, we should be careful not to adopt a "penny wise and pound foolish" policy.

BOARD OF HEALTH

In order to safeguard the people from contagion, this City Council should provide ways and means for the establishment of a substantial contagious hospital, for the isolation and care of those afflicted with contagious diseases. This is a matter of vital importance to all our people, but especially to those of limited means who cannot afford trained nurses and do not tenant houses commodious enough for complete isolation.

It would be lamentable, indeed, to have an epidemic run riot in our city, and yet we provide only the minimum of protection against such a contingency when we fail to establish a contagious hospital. The importance of such an institution appealed to the Legislature of 1906,

and Section 1, Chapter 365, Acts and Resolves of that year is as follows:

“Each city shall establish and constantly be provided within its limits, with one or more isolation hospitals for the reception of persons having smallpox or any other disease dangerous to public health. Such hospitals shall be subject to the orders and regulations of the Boards of Health of the cities in which they are respectively situated. A city, which upon request of the State Board of Health, refuses or neglects to comply with the provisions of this section, shall forfeit not more than five hundred dollars for each refusal or neglect; provided, however, that if, in the opinion of the Boards of Health of two or more adjoining cities or towns, such hospitals can advantageously be established and maintained in common, the authorities of the said cities or towns may enter into such agreements as may be necessary for the establishment and maintenance of the same.”

Our city is not entirely free from the ravages of the “White Plague” and one of the very best ways to stamp it out would be to have each case reported so that health inspectors could visit every house in which a case is located and see that all necessary precautions are adopted to prevent the spread of the disease. By such means, also, much might be done to bring about the cure of incipient cases, to prevent the spread of other diseases and to detect and remedy unsanitary conditions.

Our Greek physicians could render valuable service to the public by frequent lectures to their fellow countrymen on the evils of this scourge.

PUBLIC LIBRARY

Our public library has rightly been called "The Poor Man's University." In this place, after his day's toil, the carpenter, the machinist, the plasterer, the plumber, the steamfitter, the painter, the decorator, the engineer, the fireman, the weaver, the spinner, the gardener, in short, members of all crafts and trades may find the latest text books and authorities to improve their wage earning capacity.

Here, too, may be found the masters of prose and poetry to satisfy the tastes of many.

In connection with the public library is conducted a public reading room where magazines and the daily and weekly papers of Lowell and other cities may be perused at leisure during reasonable hours on week days and Sundays. How well it is appreciated is best told by the presence of clean, orderly, earnest men to be seen any time a visit is made to the place.

There is also an art room in connection with the reading room, the especial delight of school children who flock there after school hours in large numbers.

STATE AID DEPARTMENT

This department disburses State and Military Aid under the supervision of the Commissioner of State Aid and Pensions in Boston, and all applications must be carefully and thoroughly investigated to meet with his approval.

All applications for burial allowances for honorably discharged soldiers, sailors or marines who served under certain limitations, must also be made to the Commissioner. Twenty-seven applications for this allowance have been approved by him during the year.

The veterans' ranks are rapidly diminishing but those remaining suffer from disabilities resulting from their service and the infirmities of age which require kind treatment and increased assistance.

The widows of veterans are also old and feeble and many of them past work. There are more than two hundred such recipients of State Aid now on the list and their ages vary from forty-nine to ninety-one years. The youngest veteran is sixty-three years of age, the oldest eighty-two.

It is thought that the maximum number of recipients in all the departments of relief has been reached and the number on the list will show a reduction one year hence.

The veterans and their dependents appear to fully appreciate the generous assistance rendered by the city and state and firmly desire that it may continue to the end.

PUBLIC HALL

Lowell ought to have a public hall. The people of Lowell believe this and voted in a way that could not be mistaken in relation to it several years ago. The argument that there is not at hand money to commence such work will not stand in the face of about \$50,000.00 available at any time. The selection of a site should not be so perplexing as to postpone the work indefinitely.

In connection with this question as with every other public question of importance there is bound to be some conflict of opinion, but a little concession, a little compromise, a little sacrifice of opinion on the part of everybody having anything to do with the selection of a site will undoubtedly solve all difficulties and bring about the erection of a public hall during the year.

STREETS

Each year sums of money are expended for the making, repair and care of streets, and this is particularly true of the principal thoroughfares, and such expenditure must continue unless we adopt the course that has been pursued in relation to three or four of our main streets, by installing a pavement that can properly be called permanent.

From the standpoint of appearance, service, comfort, health and economy, permanent paving where needed is most desirable. Just what special kind of pavement should be adopted is a question about which even experts may easily differ, but the granite block pavement on Hassam Concrete Foundation as laid on Central, Merrimack and Middlesex Streets seems to give quite general satisfaction.

The principal streets in the business heart of the city having been cared for, the improvement should branch out from this point in continuity until all the arteries of travel leading to the outskirts of the city have received like treatment. But this means an expenditure of money that at first sight may seem large, put a pavement of long life, easy to keep clean, and needing little or no repairing, is in the final summing up the most economical and best.

A city is in a large measure judged by the appearance of its streets and avenues, and we cannot expect strangers will be favorably impressed with our city if our streets are to remain in poor condition.

That some definite sum of money ought to be set aside and expended annually for permanent pavement I am convinced, but just what that sum should be I shall not be prepared to state until after further investigation and research. On this matter, as on most others, we are to be guided by public necessity and a proper regard for the financial resources of our city.

WATER WORKS DEPARTMENT

The Water Works have been kept up to the usual state of efficiency.

The low rain fall of the last three years, which has caused a serious shortage in the public water supply in many of our New England cities, although not affecting materially our supply as to quantity, has affected the quality to some extent due to an increase of iron in the water. This condition was remedied for the present by replacing fifty of the oldest wells with new ones, but the coming year, the Board contemplates a large increase in the number of wells adjacent to the present wells.

Considerable work was done during the year connecting "Dead Ends" of street mains for the purpose of increasing the circulation of water. This insures better water in the section where these extensions were made. It also increases the pressure in case of fire by reducing friction.

Twelve hundred tons of coal were saved the past year by the operation of the new Holly Pump at the Boulevard Pumping Station. Another pump of this type is desired at the Centralville Pumping Station, and it is for you to say whether or not it shall be installed.

It is claimed by those at the head of the department that the present pumping machinery is old, antiquated and costly to maintain in condition to operate. They assert that the material saving in operation and maintenance, and the reliability of new up-to-date pumping machinery in case of fire, should weigh heavily in favor of the installation of a new pump.

FIRE DEPARTMENT

The safety of life and property in our city is chiefly

dependent upon the efficiency of our fire department in men and equipment.

We slumber during the still watches of the night with the entire persuasion that our fire department will prove equal to almost any emergency. Rarely a fire of any magnitude visits our city and in the last analysis we must credit it to our firemen and modern apparatus.

During the year a new house in West Sixth Street with a hose wagon, truck, and eighteen men has been added to the department. Fifteen permanent and ten call men were recently added to the roster of the department. It is a heritage from last year's government, and will increase this year's financial burdens, but if the benefits that accrue should prove commensurate with the outlay there will be no regret.

An auto protective is expected to arrive in the city for use at any time now, and it is believed it will further increase the efficiency of the department.

BY-PRODUCTS

By strict co-operation among the municipal departments a saving can be made at least of by-products that are now allowed to go to waste in one way or another. For example, manure and ashes are by-products with the fire department, while hay and wood are by-products with the park department.

If the by-products of any department can be used to lessen the expenditures of another department, this should and must be done in the interest of economy.

LAW DEPARTMENT

During the past year several important cases have been heard and argued before the Court and results of same are awaited, namely: Charles Cowley vs. City of Lowell; Grade Crossings (School, Walker, Lincoln and Plain Streets); Molly Varnum Chapter, D. A. R., vs. City of Lowell. Several cases of tort have been tried during the year in the Superior Court. The Mayor and Board of Aldermen, of 1909, petitioned the Court for change of grade at Middlesex Street crossing.

In the Billerica Street bridge alteration, a petition to the Superior Court for the appointment of commissioners to determine which party shall carry such a decision into effect and which party shall pay the charges of expenses for making such alteration. There are quite a number of tort and contract cases pending in the Superior Court which must be met. The Department is called upon to advise with the City Council from time to time, and also to give opinions as requested.

SCHOOLS

In the annual report of the Superintendent of Schools for the year 1908, it is stated that the races represented in the day schools number forty, and in the evening schools twenty-nine. What a marvelous illustration of the immense advantages the American city holds out to the children of the rest of the world. It is safe to assert that in no place but an American city could such a mingling of races be found in the schools. It negatives the fear that the ship of state is fast drifting from the moorings of the fathers. It repudiates the claim that

the races coming to our shores cannot assimilate American ideas. It sets at rest forever, to my way of thinking, the doubt sometimes entertained of the power of American environment to mould recent importations to domestic thought and habit.

Who begrudges the school department the extraordinary power of being its own judge of the amount of money that shall be expended for school purposes if it can perform the stupendous task, as it undoubtedly has, of thoroughly Americanizing the children of different races who come to our city. Such work necessarily involves ability of no common order, temperament under perfect discipline, and inclination to achieve the very best results on the part of teachers. All we can do is to admonish those in control of our school department to be as economical and wise in the expenditure of the vast sum of money appropriated for school purposes as the conditions and circumstances will permit.

Denials, sacrifices, sometimes biting want have been the price paid by some parents for the education their children received in our schools. Yet, they bore it all cheerfully, firm in the belief that it meant a better start in life than they themselves enjoyed.

They were not disappointed; those products of denial, sacrifice and want have oftener than otherwise been a credit to home and city.

The only wish those men and women have today is that our schools shall keep pace with the best practical schools in the land. That experiments be left to other times and places and that the teaching force be equal to the high standard it has been our city's good fortune to possess for many years.

The evening schools with their graded classes are

doing a work for future citizenship equally as important as our day schools. Merit alone being the passport to promotion, the pupils diligently apply themselves to the studies prescribed and make rapid progress. This is strikingly noticeable among the pupils who naturally speak another tongue and are eager to become proficient in English.

There are sixty-three school buildings valued at \$1,666,500.00.

The average attendance of pupils at day schools is 11,420, and the average attendance of pupils at evening schools 2,200. In the day schools 333 elected teachers and 13 temporary teachers are employed. In the evening schools 125 teachers are employed.

CONCLUSION

The tinsel of ceremony now disappears and in a moment we shall stand face to face with the stern realities of official duty.

May the beginning be in perfect harmony and accord with the solemn obligation of our pledged manhood and prophetic of the year's work.

Thomas Hughes says, in speaking of courage, "But we have only been looking at one small side of a great subject, at the courage which is tested in times of terror, on the battle field, in the sinking ship, the poisoned mine, the blazing house. Such testing times come to few, and to these not often in their lives. But on the other hand the daily life of everyone of us teems with occasions which will try the temper of our courage as searchingly, though not as terribly, as battle field, or

fire or wreck. For we are born into a state of war, with falsehood and disease, and wrong and misery in a thousand forms lying all around us, and the voice within calling on us to take our stand as men in the eternal battle against these."

May we rightly interpret the will of the people and have the courage to enforce it. May we avoid any and all pitfalls and impediments that ensnared and retarded city fathers in the past. May we blend the spirit of economy with the wisdom of progress. May we co-operate with each other without selfishness or intrigue. May our hands, our heads, and our hearts act in unison, and may we demonstrate that we possess ability, to meet the great responsibilities of the high positions to which we have been called.

MUNICIPAL REGISTER
CONTAINING
RULES AND ORDERS
OF THE
CITY COUNCIL
AND A LIST OF THE
GOVERNMENT AND OFFICERS
OF THE
CITY OF LOWELL
1910



LOWELL, MASS.
THE UNION PRINTING COMPANY
67 MIDDLE STREET
1910

JOINT RULES AND ORDERS OF THE CITY COUNCIL

1. In the month of January, and not later than the second regular meeting after organization of each branch of the City Council, joint standing committees shall be appointed as follows:

- A COMMITTEE ON CLAIMS.
- A COMMITTEE ON EDUCATION.
- A COMMITTEE ON FIRE DEPARTMENT.
- A COMMITTEE ON LANDS AND BUILDINGS.
- A COMMITTEE ON MILITARY AFFAIRS.
- A COMMITTEE ON ORDINANCES AND LEGISLATION.
- A COMMITTEE ON PRINTING.
- A COMMITTEE ON STREETS.
- A COMMITTEE ON COMMONS.
- A COMMITTEE ON INDUSTRIES.

Each committee shall consist of two Aldermen and three members of the Common Council, except the Committee on Streets, which shall consist of two Aldermen and five members of the Common Council.

2. Each board shall, in such manner as it may determine, select its own members for any joint committee.

3. In all joint standing committees, except that on Finance, the member first named in the Board of Aldermen shall be chairman; on the Committee on Finance, the member first named in the Common Council shall be chairman; and in all joint special committees, the member first named in the board where the business originates shall be chairman, and shall call the committee together.

4. Reports of committees shall be made to the board first meeting after such reports are prepared and signed.

5. No committee shall act by separate consultation, and no report shall be received unless agreed to in committee actually assembled.

6. It shall be the duty of every joint committee (the Committee on Streets excepted), to whom any subject may be specially referred, to report thereon within five weeks, or ask for further time.

7. The by-laws of the city shall be termed ordinances; the enacting clause of which shall be—Be it ordained by the City Council of the City of Lowell, as follows: In all votes by which either or both branches of the City Council express anything by command, the form of expression shall be, Ordered, and whenever either or both branches express opinions, principles, facts or purposes, the form shall be, Resolved.

8. An ordinance may originate in either board, and shall be considered in three several stages. It shall first be read for information, and the question shall then be on ordering it to the Joint Standing Committee on Ordinances and Legislation, and then sent to the other branch for concurrence. When reported back, the recommendations of the committee shall first be acted on. If it shall then be ordered to a second reading, it shall next be examined by a standing committee of that board, who shall see that it is drawn in proper form. When returned by such committee, the question shall be on ordering it to be enrolled. If so ordered, it shall then be sent to the other board, where the same order of proceedings shall be observed. When it has been ordered by both branches to be enrolled, it shall be enrolled by the Clerk of the Common Council, and shall be by him submitted to the proper committee of that board to ascertain if it has been correctly enrolled. If so reported, the question shall be on passing it to be ordained. If it shall so pass, it shall be signed by the President of the Common Council, and be sent to the Board

of Aldermen, where it shall take a like course. If passed to be ordained in that board, it shall be signed by the Chairman of the Board of Aldermen and sent to the Mayor for his approval.

9. An ordinance may be rejected in any stage, but may not pass through all its stages in the same day. Each board shall transmit to the other all papers on which any ordinance, joint resolution, or order shall be founded; and all papers on their passage between the two boards, shall be under the signature of their respective clerks, except ordinances and joint resolutions in their last stage, which shall be signed by the presiding officer. If papers come before either board which have been duly acted upon in the other board, the presiding officer shall so state without reading the endorsements of the clerk, unless the latter are called for.

10. All enrolled ordinances shall be written in a fair and legible hand, or typewritten, provided a permanent record ribbon is used, without interlineations or erasures, and no enrolled ordinance or resolution shall be amended.

11. Every joint resolution shall be read in the board in which it is introduced, and the question shall be upon ordering it to a second reading. If so ordered, the question shall then be upon its passage. If passed, it shall be sent to the other board, where the order of proceeding shall be the same. When passed by both boards, the resolution shall be presented to the Mayor for his approval, and when the same shall be in force, shall be enrolled by the clerk of the Common Council, and when found correctly enrolled as provided in the case of an ordinance, it shall be signed by the President of the Common Council and the Chairman of the Board of Aldermen, and be presented to the Mayor for his signature if he approved the original.

12. Joint orders shall require but one reading, and when adopted, shall be sent to the Mayor for his approval, except where they relate to a question of a convention of the two branches, or the election of any officer.

13. When either board does not concur with the other in any ordinance or resolution sent from the other, notice of such non-concurrence shall be given by a written message.

14. In any case of non-concurrence, each board may appoint a Committee of Conference. Such committee shall consist, in each case, of three members who support the vote of their own board. These two committees may meet jointly or separately, and a majority of each shall decide its action.

15. All reports and other papers submitted to the City Council shall be written in a fair hand, or typewritten, provided a permanent record ribbon is used, without endorsement, except in case of the introduction of an order or resolution. In such a case the member introducing an order or resolution shall subscribe his name at the bottom of the back of the same. All other endorsements upon the back of papers shall be made by the clerk; and the clerks of the boards respectively, shall, on seasonable notice, make copies of any papers to be reported by committees, at the request of the respective chairmen thereof.

16. No business shall be transacted by the City Council in convention, except such as shall have been previously agreed on, unless by unanimous consent.

17. In balloting in joint convention, blanks shall be reported but not counted as votes.

18. When both boards are in session at the same time, neither shall adjourn without giving notice to the other of its intention.

19. All petitions, reports, or other papers of whatever description, relating to business requiring the concurrent action of both boards of the City Council, shall be submitted by committees to the clerk of each board at least twenty-four hours before the time of meeting of either board, and the clerk of each board shall prepare a brief synopsis of all matters to be acted upon, and place the same on the desk of each member of the

City Council prior to the hour of opening the meeting. No reports or orders not previously furnished as herein described, shall be considered in either branch unless two-thirds of the members present consent thereto.

20. These rules may be suspended for a specific purpose, or amended, whenever twenty-four members of a joint convention of the two branches shall so direct, or whenever a joint order to that effect shall be passed by the votes of six members of the Board of Aldermen and eighteen members of the Common Council.

21. No resolution for the extension and laying out of any street or public highway shall be passed to a second reading by either branch of the City Council until the City Civil Engineer shall certify to the council that said street or highway is fully completed, and graded to the grades named in the resolution, without expense to the city.

22. A yea and nay vote of the members of the City Council shall be required to pass any order or vote involving the expenditure or the appropriation of the public moneys, or involving any debt or liability, and such vote shall be entered upon the records of each branch of the City Council.

23. Less than a quorum of each branch of the City Council may adjourn to a fixed day earlier than the regular meeting, and shall have power to compel the attendance of all absent members in such manner as the City Council may by ordinance provide.

24. In the absence of rules governing both boards of the City Council, Cushing's Manuel shall decide the point.

RULES AND ORDERS OF THE BOARD OF ALDERMEN

1. At the appointed time the presiding officer shall take the chair, and on the appearance of a quorum, proceed to business.

2. The order of business shall be as follows :

First—At all regular meetings the journal of the last regular meeting and all intervening meetings of the board shall be approved without reading, unless the reading be called for by some member of the board.

Second—Petitions and similar papers.

Third—Appointments, elections, etc.

Fourth—New business, which, unless otherwise ordered, will take its place at the foot of Orders of the Day.

Fifth—Orders of the Day, consisting of unfinished business of the last previous meeting, papers from the Common Council, and such matters as have been introduced as new business. By a vote of six members, any matter in the Orders of the Day may at any time be taken up for immediate consideration.

3. The presiding officer shall decide all points of order, subject to appeal. He may read while sitting, but must rise to put a question. He shall allow debate on a question until the vote has been declared, but not on the verification of a vote; and on demand of two members shall take every vote by yeas and nays.

4. When a question is under debate, the presiding officer shall receive no motion but to adjourn, to take up a special

assignment, to lay on the table, to postpone to a day certain, to commit, to amend, or to postpone indefinitely. These several motions shall have precedence in the foregoing order, and debate upon any of them shall be confined to the actual motion, and shall not go into the merits of the main question, except on amendment.

5. When a vote has passed, except for adjournment or to lay on the table, any member voting with the majority may move a reconsideration, to be acted upon at the same meeting. Any member voting with the minority may move a reconsideration, to be acted upon at the next meeting, which latter motion shall have priority, if made before the motion first mentioned shall have been decided. Provided, however, that no motion of reconsideration made by a member voting with the minority shall be received on any subsidiary or incidental question. No motion shall be twice reconsidered.

6. No member shall be interrupted while speaking, but by a call to order, or for the correction of a mistake; nor shall there be any conversation among the members while a paper is being read, or a question stated from the chair.

7. When any member is about to speak in debate, he shall rise in his place and respectfully address the presiding officer, shall confine himself to the question under debate, and avoid personality.

8. In the month of January the following committees shall be appointed:

- A COMMITTEE ON BILLS IN SECOND READING.
- A COMMITTEE ON ELECTRIC WIRES.
- A COMMITTEE ON ENROLLMENT.
- A COMMITTEE ON LICENSES.
- A COMMITTEE ON LIGHTING STREETS.
- A COMMITTEE ON SEWERS.
- A COMMITTEE ON WEIGHTS AND MEASURES.
- A COMMITTEE ON STATE AID.

The committees on Licenses, on Sewers, and on Electric Wires shall consist of three members each; the other committees shall be composed of two each.

9. Every member present shall be held obliged to vote on all questions, and not to leave without permission, if his presence is necessary to make a quorum.

10. The clerk shall prepare, for the use of the board, a copy of the Orders of the Day, to which shall be added a list of matters laid on the table or postponed to a day certain.

11. When a reference is proposed to more than one committee the question shall first be upon a standing committee of the board, then a special committee, then a joint standing committee, and last a joint special committee.

12. These rules may be amended or suspended whenever two-thirds of the members present may so vote; but a motion to amend shall not be made and finally acted upon at the same meeting.

13. All nominations shall lie on the table three days at least before action thereon by the board.

14. All papers, of whatever description, which may require action by the board, shall be presented to the City Clerk not later than the hour of noon on the day of each regular meeting. Petitions, reports and other papers, presented after that hour on such day, will not be considered until the next meeting.

RULES AND ORDERS OF THE COMMON COUNCIL

1. Upon the arrival of the hour fixed upon for the meeting the President shall call for order, and within ten minutes (or sooner, if a quorum be present), cause the clerk to call the roll and report to him the number present, and the number absent, which information he shall, in turn, announce to the body. In the absence of the President, the eldest senior member shall call to order and preside until a President pro tempore is chosen.

2. The President shall preserve order and decorum. He may speak to points of order in preference to other members, rising for that purpose. He shall decide questions of order, subject to appeal, but shall entertain no discussion on the merits of his ruling.

3. While addressing the body the President shall stand, but he may read or put questions while sitting.

4. The President shall declare all votes, and, if a vote be doubted, he shall, without permitting further debate require the members voting in the affirmative to rise and remain standing until they are counted by the clerk; then he shall require the members voting in the negative to rise and remain standing until they are counted by the clerk, and he shall thereupon on information from said clerk, declare the result.

5. The President may call any member to the chair, but such substitution shall not extend beyond an adjournment, and when out of the chair he may express his opinion on any subject under debate, but he must not resume the chair while the same question is pending.

6. All questions shall be propounded by the President in the order in which they are moved, unless the subsequent motion be previous in its nature.

7. After a motion is stated by the President, it shall be disposed of by a vote of the body, unless the mover (no objection being offered), withdraws it before a decision or amendment.

8. A motion to adjourn shall always be in order, unless the body is engaged in voting.

9. The previous question shall be in this form: "Shall the main question be now put?" It shall only be admitted when demanded by a majority of members present, and until it is decided, shall preclude all amendment and debate of the main question.

10. The yeas and nays shall be taken on any question upon demand of one-third of the members present.

11. When two or more members rise at the same time, the President shall name the member who shall speak first.

12. Every motion shall be reduced to writing, if the President or any member requires it.

13. When a question is under debate, no motion shall be received but to adjourn, to lay on the table, for the previous question, to postpone to a certain day, to commit, to amend, or to postpone indefinitely; which several motions shall have precedence in the order in which they are arranged; and no motion to postpone or commit shall be allowed twice in the same day, in the same stage of the ordinance or proposition, nor shall a vote on any subsidiary or incidental motion be reconsidered, except a motion to that effect be made and be acted upon at the same meeting at which the vote was decided.

14. When any member is about to speak in debate, or deliver any matter to the body, he shall rise and respectfully address the presiding officer, confine himself to the question and avoid personality.

15. During debate no member shall be mentioned by name, but he may be described by such other designation as may be intelligible and respectful.

16. No member, while speaking, shall be interrupted by another, but by a call to order or to correct a mistake. If any member, in speaking or otherwise, transgresses the rules of the body, the President shall, or any member may, call him to order; in which case the member so called to order shall immediately be seated until the question of order is decided. If the decision be in favor of the member called to order, he shall be at liberty to proceed; if otherwise, he shall not proceed without leave of the body.

17. No member shall speak more than twice to the same question without obtaining leave of the body.

18. Whilst the President is speaking, no member shall pass between him and the body, and while a member is speaking no person shall pass between him and the President; nor shall any person rise in front of a speaking member except to raise a point of order.

19. When a question has been decided, any member voting with the majority may move a reconsideration to be acted upon at the same meeting. Any member voting with the minority may move a reconsideration to be acted upon at the next meeting, which latter motion shall have priority, if made before the motion first mentioned shall have been decided. No vote or question shall be twice reconsidered.

20. Every member present when a question is put shall, unless for specific reasons, excused by a majority of the members, give his vote. But in the election of any city officer, he may decline to vote, as provided in Section 7, Chapter 26, of the Revised Laws. And no member shall leave without permission, if his presence is necessary to make a quorum.

21. No motion or proposition, on a subject different from that under consideration, shall be admitted under color of an amendment.

22. All reports may be committed or recommitted at the pleasure of the body.

23. The division of a question may be called for when the sense will admit of it.

24. A majority vote shall be necessary to sustain objection to the reading of a paper.

25. No standing order shall be suspended, except by a two-thirds vote of the members present; nor shall any rule or order governing the body be repealed or amended without one day's notice, nor unless fourteen members concur therein.

26. The order of business shall be as follows:

1—Roll call.

2—Reading of records.

3—Papers from the Board of Aldermen.

4—Communications and reports from city officials.

5—Presentation of petitions, remonstrances and memorials.

6—Reports of Committees.

7—Unfinished business of preceding meetings.

8—Motions, orders or resolutions.

The above order of business shall not be departed from, except by vote of a majority of the members present, but the body may appoint a committee of two to approve the records of the clerk during the year, and if such a committee is appointed, the reading of the records shall be omitted, unless called for by one-third of the members present.

27. The seats of the Common Council shall be numbered and determined by lot, and no member shall change his seat but by permission of the President.

28. All committees, except such as the body determines to select by ballot, or such as may be required by statute to be voted for, shall be appointed by the President, and the political minority shall be represented by at least one member.

29. No member shall be obliged to serve on more than two committees at the same time, or be chairman of more than one.

30. All memorials and other papers addressed to the body shall be presented by the President, or by a member in his place, who shall explain the subject thereof; and they shall be taken up in the order in which they were presented, unless the body shall otherwise direct.

31. Standing committees shall be appointed on the following subjects :

On Second Reading of Bills and Ordinances.

On Enrollment.

On Elections and Returns.

32. No committee shall sit during a session of the body, without special leave, except the Committee on the Second Reading of Bills and Ordinances and the Committee on Enrollment.

33. These rules shall be observed in the Committee of the Whole, so far as they are applicable, except Rule 17.

34. When a committee is nominated by the chair, the person first named shall be chairman. In the election of committees, except on finance, when a chairman is not specially chosen, the person having the highest number of votes shall act as chairman; and in case of an equality in votes between two or more members of a committee, the members thereof shall choose a chairman.

35. All committees shall consist of three members, unless otherwise specially provided for; and no report shall be received

from any committee unless agreed to in committee actually assembled; and reports shall be in writing, unless otherwise ordered.

36. It shall be the duty of every committee to whom any subject may be specially referred, to report thereon within five weeks, unless further time is previously asked for and granted.

37. Members of the body may attend any meeting of any of its committees, but shall not vote thereat.

38. All ordinances and resolutions shall have two several readings before they shall be finally passed. See Joint Rules 7 and 8.

39. All ordinances after being read a second time shall be referred to the Committee on the Second Reading of Bills and Ordinances, and after being reported upon by said committee, shall be again read, after which the question shall be on passing the same to be enrolled.

40. No ordinance or resolution imposing penalties, or authorizing the expenditure of money, shall have more than one reading the same day.

41. Any member offering a resolution or order shall write his name on the bottom of the back of such paper.

42. All city officers shall be voted for in accordance with Section 7, Chapter 26, of the Revised Laws.

43. The clerk shall keep brief minutes of the votes and proceedings of the body, entering thereon all accepted resolutions; shall notice reports and memorials, and other papers submitted to the board, only by their titles or by a brief description of their purport.

44. The clerk shall keep the record of committees that may require that service; and on the appointment of every standing committee, a book for records shall be provided by its chairman,

or by said clerk. The clerk shall have the custody of all minutes by him kept; and the records of the several committees shall be open to the inspection of members of the City Council.

45. With the exception of an order for a joint convention, any joint order or resolution originating in the Common Council, shall be copied, and shall, previous to the hour for calling the meeting to order, be posted by the clerk in some prominent place in the Common Council chamber or coat room, where it may be open to the inspection of members.

46. All orders, resolutions, reports, petitions, or other papers (except communications), requiring concurrent action, or action by this body only, shall be filed by members in the office of the City Clerk at least twenty-four hours before the time set for the meeting of the body; also all reports or papers from committees.

47. No paper entered in violation of the preceding rule shall be considered except by unanimous consent.

48. The clerk shall, previous to each regular or special meeting, prepare, in the sequence of the order of business, a brief synopsis of all matters to be acted upon, and place, or cause to be placed, on the desk of each member, a copy of the same, prior to the hour designated for calling such meeting to order.

49. "Cushing's Manual" shall be authority on all questions of debate or parliamentary usage, when the same does not conflict with the rules and orders of this body.

50. A copy of "Cushing's Manual" shall, at all times, during the sessions of this body, be on the desk of the President.

CITY COUNCIL AND COMMITTEES FOR 1910

Mayor

JOHN F. MEEHAN.....224 Worthen Street

Aldermen

SMITH J. ADAMS.....9 Stevens Street
OWEN E. BRENNAN20 Crowley Street
ARNOLD A. BYAM.....97 Fourth Street
JAMES H. CARMICHAEL.....22 Rolfe Street
JEREMIAH F. CONNORS.....253 Concord Street
ROYAL K. DEXTER319 Wilder Street
ARTHUR L. GRAY.....71 Dover Street
STANLEY E. QUA.....140 Methuen Street
JOHN W. WAINWRIGHT.....152 School Street
ARTHUR L. GRAYChairman
GIRARD P. DADMANClerk

Common Councilmen

Ward One

OTIS W. BUTLER109 Methuen Street
ROBERT S. FULTON.....27 Myrtle Street
JOHN A. MCKENZIE.....42 Third Street

Ward Two

JOHN J. BRADY38 Suffolk Street
JOHN F. GOOKIN320 Fletcher Street
GARRETT G. ROYAL.....362 Broadway

Ward Three

WILLIAM T. DAVIS.....21 Sagamore Street
VICTOR F. JEWETT.....1281 Middlesex Street
EDWIN W. KILLPARTRICK.....360 Wilder Street

Ward Four

CHARLES F. DONAHOE.....44 Pine Hill Street
 WILLIAM J. GARGAN36 Crosby Street
 EDWARD J. TARRANT43 Crosby Street

Ward Five

JAMES J. FLANAGAN.....186 Pleasant Street
 CORNELIUS J. SULLIVAN822 Central Street
 BERNARD J. TRACEY15 Abbott Street

Ward Six

HENRY ACHIN, JR..... 90 Aiken Street
 JAMES A. BURNS41 Riverside Avenue
 JOSEPH H. JODOIN, JR..... 152 West Sixth Street

Ward Seven

ARTHUR GENEST.....111 Gershom Avenue
 ALFRED T. HOWE4 Eighth Avenue
 OVILA MORIN 68 Mt. Hope Street

Ward Eight

GEORGE L. DOW7 Waite Street
 HERBERT E. ELLIOTT56½ Washington Street
 ORRIN B. RANLETT, 2D..... 95 Sanders Avenue

Ward Nine

HERBERT L. CHAPMAN.....364 East Merrimack Street
 JOHN P. DAVIS35 Huntington Street
 HARRY H. WHITTET.....50 Wentworth Avenue
 VICTOR F. JEWETT.....President
 FRANK M. DOWLING.....Clerk

MEETINGS OF THE CITY COUNCIL

The regular meetings of both branches of the City Council are held at the City Hall as follows :

Aldermen

First and Third Tuesdays of each month except August.

January	4 and 18	July	5 and 19
February.....	1 and 15	September	6 and 20
March	1 and 15	October	4 and 18
April	5 and 19	November	1 and 15
May	3 and 17	December.....	6 and 20
June	7 and 21		

At 8 P. M.

Councilmen

Second and Fourth Tuesdays in each month except August.

January.....	11 and 25	July	12 and 26
February.....	8 and 22	September	13 and 27
March	8 and 22	October.....	11 and 25
April	12 and 26	November	8 and 22
May	10 and 24	December.....	13 and 27
June.....	14 and 28		

At 8 P. M.

Joint Standing Committees

ACCOUNTS—Alderman Qua; Councilmen Butler and Jodoin.

APPROPRIATIONS—Aldermen Gray, Dexter and Wainwright; Councilmen Jewett, J. P. Davis, Fulton and Flanagan.

CLAIMS—Aldermen Byam and Wainwright; Councilmen Chapman, McKenzie and Gookin.

EDUCATION—Aldermen Connors and Adams; Councilmen Fulton, Elliott and Sullivan.

FINANCE—Councilman Dow (Chairman), Mayor John F. Meehan, Alderman Wainwright; Councilmen Elliott and Burns.

FIRE DEPARTMENT—Aldermen Adams and Byam; Councilmen Achin, Killpartrick and Tracey.

INDUSTRIES—Aldermen Dexter and Qua; Councilmen McKenzie, Morin and Jodoin.

LANDS AND BUILDINGS—Aldermen Qua and Byam; Councilmen Whittet, Howe and Tarrant.

MILITARY AFFAIRS—Aldermen Carmichael and Gray; Councilmen J. P. Davis, Ranlett and Royal.

ORDINANCES AND LEGISLATION—Aldermen Qua and Connors; Councilmen Achin, Killpartrick and Flanagan.

PRINTING—Aldermen Gray and Wainwright; Councilmen Chapman, W. T. Davis and Gargan.

STREETS—Aldermen Gray and Carmichael; Councilmen Genest, Dow, W. T. Davis, Brady and Donahoe.

Standing Committees of the Board of Aldermen

BILLS IN SECOND READING—Aldermen Brennan and Wainwright.

ELECTIONS AND RETURNS—Aldermen Adams and Connors.

ELECTRIC WIRES—Aldermen Wainwright, Dexter and Brennan.

ENROLLMENT—Aldermen Carmichael and Dexter.

LICENSES—Aldermen Connors, Adams and Byam.

LIGHTING STREETS—Aldermen Adams and Brennan.

SEWERS—Aldermen Dexter, Qua and Connors.

STATE AID—Aldermen Byam and Carmichael.

WEIGHTS AND MEASURES—Aldermen Brennan and Qua.

Standing Committees of the Common Council

BILLS IN SECOND READING—Councilmen Achin, Butler and Royal.

CLERK'S RECORD—Councilmen Whittet and Gookin.

ELECTIONS AND RETURNS—Councilmen Howe, Morin and Sullivan.

ENROLLMENT—Councilmen Achin, Elliott and Gargan.

RULES—Councilmen Genest and Burns.

CITY OFFICERS FOR 1910

Mayor

Telephone 395

JOHN F. MEEHAN.....Office, City Hall
Chosen at City Election, the second Tuesday in December.

City Clerk

Telephone 430

GIRARD P. DADMAN.....Office, City Hall
Chosen by the City Council in convention in January. Term expires
first Monday in January, or when successor is chosen. City Charter, Sect.
17, Ord., Chap. 8.

Assistant City Clerk

WILLIAM P. MCCARTHY.....Office, City Hall
Appointed by the City Clerk, subject to approval of the Board of Alder-
men. R. L. Chap. 26, Sect. 16, Ord., Chap. 8.

Clerk of Committees

Telephone 130

FRANK M. DOWLING.....Office, City Hall
Term expires 1913
Chosen by concurrent vote in January for the term of three years.
Ord. 1900.

City Treasurer and Collector of Taxes

Telephone 577

ANDREW G. STILES.....Office, City Hall
Chosen by the City Council in convention in January for one year from
the first day of April, or until successor is chosen. City Charter, Sect. 17,
Ord., Chap. 9.

Auditor of Accounts

Telephone 74

CHARLES D. PAIGE.....Office, City Hall

Term expires April 1, 1912

Chosen by concurrent vote in January or February for three years from the first day of April, or until successor is chosen. Chap. 373, Acts of 1905.

Superintendent of Streets

Telephone 572-3

NEWELL F. PUTNAM.....Office, City Hall

Chosen by concurrent vote in January or February. Term expires first Monday in January, or when successor is chosen. Ord., Chap. 39, Sect. 1.

Chief of Department of Supplies

Telephone 230

PETER A. MACKENZIE.....Office, City Hall

Chosen at annual city election. Sect. 3, Chap. 415, Acts of 1896.

Civil Engineer for the City

Telephone 136-2

GEORGE BOWERS.....Office, City Hall

Chosen by concurrent vote in January or February for one year from the first day of April, or until his successor is chosen. Ord., Chap. 13, Sect. 1.

City Solicitor

Telephone 1400

WILLIAM W. DUNCAN.....Office, City Hall

Chosen by concurrent vote in January or February for one year from the first day of March, or until his successor is chosen. Ord., Chap. 11, Sect. 1.

City Messenger

Telephone 130

JOSEPH E. PATTEE.....Office, City Hall

Chosen by concurrent vote in January for one year from the first Monday in February or until his successor is chosen. Ord., Chap. 10, Sect. 1.

Board of Park Commissioners

COL. PERCY PARKER.....Term expires 1911
 HON. JOHN E. DRURY (Secretary)Term expires 1912
 HON. JOHN J. PICKMAN (Chairman).....Term expires 1913
 HARVEY B. GREENE.....Term expires 1914
 THALLES P. HALLTerm expires 1915

One member appointed annually by the Mayor with the approval of the City Council, for a term of five years from the first Monday in May. Revised Laws, Chap. 28.

CHARLES A. WHITTET.....Superintendent

Trustees of City Library

JOHN F. MEEHAN, Chairman Ex-OfficioMayor
 PETER W. REILLY.....Term expires 1911
 MRS. ROWENA PALMERTerm expires 1912
 FRANK P. PUTNAM, Vice-ChairmanTerm expires 1913
 CHARLES E. HOWETerm expires 1914
 THOMAS WALSH.....Term expires 1915

FREDERICK A. CHASELibrarian and Clerk.

Telephone 506-3

One appointed by the Mayor in December for term of five years commencing the second Monday in January, or until successor is appointed. Chap. 231, Acts of 1888. Ordinances, Chap. 14.

Regular meeting last Tuesday in each month.

Huntington Hall Commission

JOHN F. MEEHAN, Ex-OfficioMayor
 CHARLES S. PROCTOR, SecretaryHENRY L. ROURKE
 HENRY RUNELSFRANK W. HURD

Appointed by City Council to acquire a site and build a public hall. Ordinance approved May 15, 1906.

Inspector of Buildings

Telephone 129-2

JAMES DOWOffice, City Hall

Chosen by concurrent vote in January for one year. Ord. approved Aug. 3, 1906, Sec. 3.

City Physician

Telephone 1078-2

DR. FORSTER H. SMITHTerm expires Dec. 1, 1911
Office, 805 Merrimack Street

Chosen by concurrent vote in October or November for term of three years from first day of December. Ord. approved Dec. 9, 1905.

Trustees of Public Burial Grounds

Telephone 58-4

ALBERT F. GRANTTerm expires April 9, 1911
MELVIN B. SMITH.....Term expires April 9, 1912
RICHARD A. GRIFFITHSTerm expires April 9, 1913
WILLIAM H. WILSON, Chairman.....Term expires April 9, 1914
CHARLES A. GALE, SecretaryTerm expires April 9, 1915
ROBERT J. GILMORE.....Superintendent

One Trustee appointed by the Mayor annually in April for term of five years. Chap. 242, Acts 1907.

Assessors of Taxes

Telephone 136-3

SOLOMON S. MAYBERRYTerm expires 1911
C. ARTHUR ABBOTT.....Term expires 1912
ALBERT J. BLAZONTerm expires 1913
WILLIAM J. REARDONClerk

Temporary Assistant Assessors of Taxes

RICHARD CHARLTON	WILLIAM A. PARTHENAIS
EDWARD T. GOWARD	GEORGE W. PETERSON
MICHAEL BOURDON	JAMES J. REDMOND
EDMUND J. CHENEY	CORNELIUS F. CRONIN
FRANK GRAY	JOHN M. RYAN
JOHN E. McCORMICK	THOMAS P. McGOVERN

Assessors :—One chosen by concurrent vote of the City Council annually in January or February for the term of three years from the first Monday in January, or until successor is chosen.

Temporary Assistant Assessors:—Appointed by the Assessors. Ord., Chap 3. Amended Ord. approved April 23, 1908.

Inspector of Wires

Telephone 288-2

WILLIAM R. FOSTERTerm expires Feb. 1, 1910

Appointed by Mayor and Aldermen in January for term of three years. Ord. approved July 15, 1898.

Board of Charities

Telephone 566-3

DR. JAMES J. McCARTY.....Chairman

MATTHEW COUPE.....Term expires Jan. 15, 1911

JOHN F. BURNSTerm expires Jan. 15, 1912

HARRY W. J. HOWETerm expires Jan. 15, 1913

FRANK RICARDTerm expires Jan. 15, 1914

DR. JAMES J. McCARTY.....Term expires Jan. 15, 1915

One member appointed by the Mayor annually, before the fifteenth day of January for a term of five years from said fifteenth day of January. Chap. 337, Acts of 1905.

Superintendent

Telephone 323-3

MARTIN F. CONLEY.....Office, City Hall

Residence at City Hospital

District and Dispensary Physicians

DISTRICT 1—Dr. T. J. Halloran8 Runels Building

DISTRICT 2—Dr. A. J. Halpin26 Central St.

DISTRICT 3—Dr. James E. LearyAssociate Building

DISTRICT 4—Dr. A. E. Gillard.....32 John St.

DISTRICT 5—Dr. D. S. Bellehumeur.....813 Merrimack St.

DISTRICT 6—Dr. Pierre Brunelle, Jr.....33 East Merrimack St.

City Dispensary

City Hall

EDWIN F. MASONClerk

Open week days 9 A. M. to 1 P. M., 2.30 to 5 P. M.

Water Board

OFFICE, CITY HALL. Telephone 271

ROBERT W. VAN TASSELLPresident

ROBERT J. CROWLEY.....Term expires 1911

ROBERT W. VAN TASSELLTerm expires 1912

JAMES McDOWELLTerm expires 1913

JAMES G. HILLTerm expires 1914

JOHN W. CRAWFORDClerk

ROBERT J. THOMASSuperintendent

The members of the Water Board are chosen by concurrent vote in January or February for a term of four years from second Monday in March following their election, one member retiring annually.

The Superintendent is chosen in March by the Board.

The Clerk is chosen by the Board in June. Ord. Chap. 45.

HOURS: 9 A. M. to 5 P. M.

Commissioners of Sinking Funds

AUSTIN K. CHADWICK.....Term expires Jan. 1, 1911
 FRED A. BUTTRICKTerm expires Jan. 1, 1912
 CHARLES L. KNAPPTerm expires Jan. 1, 1913
 ANDREW G. STILESSecretary and Treasurer

One member elected annually by the City Council in December for three years, commencing January first. Revised Laws, Chap. 27, Sect. 14.

Board of Civil Service Examiners

JOSEPH SMITHChairman
 JOHN J. COLTON, M. D. CHARLES H. CONANT
 JOSEPH SMITH
 CHARLES H. CONANTSecretary
 Appointed by State Civil Service Commissioners.

Superintendent of State Aid and Agent for the Burial of Indigent Soldiers and Sailors, Etc.

Telephone 136-4

GEORGE E. WORTHEN

MARY F. O'BRIEN, Asst. Supt.

Appointed by Mayor and City Council for the term of one year from March first. Ord. approved Sept. 27, 1898. Amended Ord. approved Feb. 8, 1910.

Fire Department

The Chief Engineer is elected by concurrent vote in the month of March or April for the term of three years. Sect. 2, Chap. 95, Acts of 1897.

Assistant Engineers appointed by the Mayor and Aldermen in March or April, the First Assistant for three years, the others for one year, commencing the first day of May. Ord. approved Nov. 27, 1896.

Chief Engineer

Telephone 201-12

EDWARD S. HOSMER, 202 Westford StreetTerm expires 1912
 Office, Engine House, Middle Street

Assistant Engineers

JAMES F. NORTON, First Assistant, 22 Ames Street ..Term expires 1913
 CHARLES E. ALWAYTerm expires 1911
 EDWARD MELOY, 30 Fort Hill AvenueTerm expires 1911
 CHARLES STACKPOLE, 105 Liberty StreetTerm expires 1911
 JAMES F. NORTONClerk of the Board

The clerk is chosen by the Engineers.

Operator of Fire Alarm Telegraph

HENRY C. FERNALD.....Central Station

Board of Police

Office, Police Station

JOHN J. MULLANEY.....Chairman
 THOMAS P. BOULGER.....Term expires 1912
 CHARLES H. HANSON.....Term expires 1914
 JOHN J. MULLANEY.....Term expires 1916

Appointed by the Mayor under the provisions of Chap. 428 of the Acts of 1894 and Chap. 187, Acts of 1895.

JOHN J. FLAHERTY, JR.....Clerk

Regular meetings at the Police Station every Tuesday evening at 8 o'clock.

Telephone 1411

REDMOND WELCH, Superintendent.
 HUGH DOWNEY, Deputy Superintendent.
 THOMAS R. ATKINSON, Captain.
 JAMES BROSNAN, Lieutenant.
 JOHN FREEMAN, Lieutenant.
 MARTIN CONNORS, Lieutenant.
 JOHN B. CROWLEY, Lieutenant.
 CHARLES LAFLAMME, Inspector, Criminal.
 JOHN A. WALSH, Inspector, Criminal.
 MARTIN MAHER, Inspector, Criminal.
 MICHAEL E. McDONALD, Inspector of Claims.
 ALEXANDER DUNCAN, Sergeant.
 HUGH MAGUIRE, Sergeant.
 THOMAS McCLOUGHREY, Sergeant.
 WILLIAM GIROUX, Sergeant.

Keeper of Lockup

REDMOND WELCH

Constables

BELLE-ISLE, VICTOR H. J.	LAPIERRE, JOSEPH S.
BOISVERT, ADELARD	LAPORTE, ELIE C.
BOYLE, WM. F.	LAPORTE, ALFRED A.
BRADLEY, CHARLES F.	MANSUR, EZRA E.
CAVANAUGH, SIMON A.	McMANUS, JOHN
CROWLEY, JOHN A.	O'HARE, FRANCIS J.
CROWLEY, WM. L.	OUELLETTE, CLOVIS
DEMARAS, HARRY	PIGEON, JOSEPH L.
EMERY, DANIEL	PINDER, JOHN J.
GATELY, BERNARD F.	ROUSSELL, JOSEPH
GATELY, WILLIAM F.	SAVITHES, PETER S.
HARTWELL, CHARLES C.	SLATTERY, EDWARD F.
LAFLAMME, SIDNEY I.	SOMERS, CHARLES G.
TURCOTTE, ISIDORE	

Police Court

Telephone 575

SAMUEL P. HADLEY	Standing Justice
JOHN J. PICKMAN.....	Special Justice
FREDERICK A. FISHER	Special Justice
JAMES F. SAVAGE.....	Clerk
EDWARD W. TRULL	Assistant Clerk
EDWARD F. SLATTERY	Probation Officer

Board of Health

Telephone 549-2

LEONARD HUNTRESS, M. D., Chairman	Term expires first Monday in Feb. 1910
G. FORREST MARTIN, M. D.	Term expires first Monday in Feb. 1911
DENNIS J. MURPHY	Term expires first Monday in Feb. 1912

One member appointed annually by the Mayor and Board of Aldermen in January for term of three years from first Monday in February. Chap. 332, Sect. 1, Acts of 1895.

Board of Registrars of Voters

JOHN P. FARLEY, Chairman

J. OMER ALLARD	Term expires April 1, 1911
JOHN P. FARLEY	Term expires April 1, 1912
HUGH C. MCOSKER	Term expires April 1, 1913

GIRARD P. DADMAN, City Clerk, Ex-Officio

Chap. 560, Sects. 24 and 31. Acts 1907

Chap. 440, Sect. 6. Acts 1909

One member appointed annually in February or March for three years from the first day of April next ensuing and until his successor is appointed and qualified.

Fence Viewers

WILLIAM A. ARNOLD

JOHN VINCENT

Chosen by concurrent vote by nomination commencing in the Board of Aldermen in January or February Ord. Chap. 41, Sect. 1.

Field Drivers

FRANK FOX

WILLIAM G. BUMPS

JAMES BROSNAN

MARTIN CONNORS

Chosen by concurrent vote by nomination commencing in the Board of Aldermen in January or February. Ord. Chap. 41, Sect. 1.

Pound Keeper

ORVILLE W. PEABODY

Chosen by concurrent vote by nomination commencing in the Board of Aldermen in January or February. Ord. Chap. 41, Sect. 1.

Smoke Inspector

ROY W. GREENLEAF

Appointed by the Mayor. Revised Laws, Chap. 103, Sect. 125.

Sealer of Weights and Measures

JOHN W. STOTT

JOHN NESTOR, Deputy Sealer

Appointed by the Mayor and Aldermen in March for one year from April first. Revised Laws, Chap. 62, Sect. 18, Ord. Chap. 41, Sect. 2. Ord. 1908. Civil Service applies, Chap. 382, Acts 1909.

Deputy appointed by Mayor and Aldermen in March for one year from April first. Ord. 1909. Civil Service applies, Chap. 382, Acts 1909.

Inspector of Milk

Telephone 943

MELVIN F. MASTEROffice, City Hall

Appointed by the Board of Health. Chap. 405, Acts of 1909.

Inspector of Animals

Telephone 555

WALTER A. SHERMANOffice, 340 Central Street

Appointed by the Mayor and Board of Aldermen annually in March, subject to approval of Chief of Cattle Bureau. Revised Laws, Chap. 90, Sect. 12, Acts of 1902, Chap. 116.

Inspector of Provisions

DR. CLEMENT A. HAMBLETT

Appointed by the Board of Health.

Inspector of Petroleum Oil

EDWARD S. HOSMER

Appointed by the Mayor and Aldermen. Revised Laws, Chap. 102, Sect. 109.

Fish Warden

GEORGE T. SPENCE

Appointed by the Mayor and Aldermen. Revised Laws, Chap. 91, Sect. 54.

Forest Warden

EDWARD S. HOSMER

Appointed by the Mayor and Aldermen in March or April, subject to the approval of the State Forester. Chap. 475, Acts of 1907.

**Superintendent of City Scales—Measurer of Wood and Bark
—Inspector of Baled or Bundled Hay—At City Scales**

GEORGE F. NOONAN

Office at City Scales, Rear of Police Station

Appointed by the Board of Aldermen in January or February. Ord. Chap. 46, Sect. 1, Chap. 21, Sect. 1.

**Measurers of Wood and Bark Brought by Water or Railroad
Cars into the City**

JOHN F. BATEMAN

CLIFTON F. LAWRENCE

ORA M. SNELL

Appointed by the Board of Aldermen in January or February. Ord. Chap. 46, Sect. 1.

Measurers of Wood and Bark

BATEMAN, JOHN F.	LINSCOTT, HIRAM E.
CAWLEY, WM. F.	McKNIGHT, MARION E.
COBURN, JOSEPH B. V.	McKNIGHT, MILDRED M.
CROSSLAND, H. J.	McLEAN, JOHN R.
CROTTY, MARY E.	MURPHY, JOHN H.
DOWNS, GEORGE W.	MURPHY, THOMAS J.
DUNLAY, FREDERICK	O'CONNOR, EDWARD
FENTON, ABRAM	OSBORN, VIRANUS E.
FULLER, GEORGE B.	PETTERSON, BIRGER
GRONDIN, ABRAHAM	QUINN, JOHN P.
HALL, OSCAR A.	RYAN, A. J.
HARVEY, WM. H.	STANLEY, HARRY L.
HUMPHREY, J. F.	STEVENS, WM. F.
KIDDER, PAULINE H.	SHEA, DENNIS

WASHINGTON, GEORGE

Appointed by the Board of Aldermen in January or February. Ord. Chap. 46, Sect. 1.

Measurers of Grain

FENTON, ABRAM	RYAN, ARNOLD J.
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Fees—2 1-2 mills a bushel for measuring. Appointed by the Board of Aldermen in January or February. Ord. Chap. 41, Sect. 2.

Surveyors of Lumber

BATEMAN, JOHN F.	McAULEY, KENNETH
CARROLL, WILLIAM J.	McLAUGHLIN, GEORGE
CONANT, FREDERICK	McLEAN, JOHN R.
DEMANGE, THOMAS	McLEOD, MURDOCK K.
DOWNS, GEORGE W.	McPHEE, HARRY M.
DREW, JOHN B.	O'CONNOR, EDWARD
DUNCKLEE, FRED W.	O'NEIL, DAVID
ERWIN, JAMES	OSBORN, VIRANUS E.
FULLER, GEORGE B.	PARKER, H. HUTCHINS
GILMAN, ALBERT I.	PETTERSON, BIRGER
HALL, OSCAR A.	PHINNEY, ALBERT W.
HILDRETH, C. L.	SCRIBNER, ERNEST D.
HOLSTEIN, ARTHUR H.	SHEA, THOMAS H.
HUMPHREY, J. F.	STEPHEN, H. SCRIBNER
LAWRENCE, CLIFTON F.	STEVENS, WM. F.
LINSCOTT, HIRAM E.	WELCOME, ASHLEY A.
MAYBERRY, OLIVER W.	WHITNEY, GEORGE W.

Chosen by concurrent vote by nomination commencing in the Board of Aldermen in January or February. Ord. Chap. 41, Sect. 1.

Surveyors of Plastering, Brick or Stone Work and Painting

BATEMAN, JOHN F.

SMITH, MELVIN B.

SNELL, ORA M.

Appointed by the Board of Aldermen in January or February. Ord.
Chap. 41, Sect. 2.

Weighers of Hay and Other Articles

BEALS, LAFOREST

LINSKOTT, HIRAM E.

BROWN, F. L.

MACLACHLAN, ALEX. L.

BURNS, GEORGE E.

MAHAN, JAMES F.

CAWLEY, WILLIAM F.

McCUSKER, JOSEPH T.

COBURN, JOSEPH B. V.

McKNIGHT, MARION E.

CROTTY, MARY E.

McKNIGHT, MILDRED M.

CURRAN, MICHAEL

McLEAN, JOHN R.

DOTY, W. C.

MOLLAHAN, MARY F.

DOWNS, GEORGE W.

MORSE, R. A.

DUFFY, ETTA M.

MURPHY, JOHN H.

DUNLAY, FREDERICK

MURPHY, THOMAS J.

ELLIOTT, HERBERT E.

NELSON, GEORGE W.

FEENEY, SARAH V.

O'BRIEN, EVERETT

FENTON, ABRAM

O'CONNOR, EDWARD

FULTON, ROBERT S.

OSBORN, VIRANUS E.

GRONDIN, ABRAHAM

PAQUIN, ALFRED L.

HARTWELL, GEORGE W.

PETTERSON, BIRGER

HUMPHREY, J. F.

PRESTON, JOHN H.

HUNT, GUY C.

QUINN, JOHN P.

HUNT, WALTER B.

RAMOS, JOE S.

JACOBS, JOSEPH R.

RYAN, ARNOLD J.

JORDON, JOHN

SMITH, LORENZO E.

KEDDY, ARTHUR D.

STANLEY, HARRY L.

KELLEY, FRANK

STEVENS, WM. F.

KELLY, WILLIAM

VIEIRA, JOHN R.

KIDDER, PAULINE H.

WELCOME, ASHLEY A.

KNIGHT, FRANK W.

WILSON, E. A.

LINDQUIST, FRANK E.

WILSON, FRANKLIN T.

WOLFF, ABRAHAM

Weighers of Coal

BEALS, LAFOREST
BENNISON, EDNA B.
BURNS, GEORGE E.
CAWLEY, WILLIAM F.
CROTTY, MARY E.
CURRAN, MICHAEL
DOBSON, FRANK W.
DOTY, W. C.
DOWNS, GEORGE W.
DREWETT, EDWARD
DUFFY, ETTA M.
DUNLAY, FREDERICK
DURKIN, THOMAS
ELLIOTT, HERBERT E.
FEENEY, SARAH V.
FENTON, ABRAM
FULTON, ROBERT S.
GRONDIN, ABRAHAM
HARNDEN, NED
HARVEY, WM. H.
HUNT, GUY C.
JACOBS, JOSEPH R.
JORDON, JOHN
KEDDY, ARTHUR D.
KELLEY, FRANK
KELLY, WILLIAM
KIDDER, PAULINE H.
LINDQUIST, FRANK E.

MAHAN, JAMES F.
McCUSKER, JOSEPH T.
McKNIGHT, MARION E.
McKNIGHT, MILDRED M.
McLEAN, JOHN R.
MOLLAHAN, MARY F.
MURPHY, JOHN H.
MURPHY, THOMAS J.
NELSON, GEORGE W.
O'BRIEN, EVERETT
O'CONNOR, EDWARD
OSBORN, VIRANUS E.
PAQUIN, ALFRED L.
PETTERSON, BIRGER
PRESTON, J. H.
QUINN, JOHN P.
RAMOS, JOE S.
REARDON, DANIEL A.
ROBBINS, CHARLES D.
RUSHWORTH, CHARLES B.
SHEA, DENNIS
SMITH, LORENZO E.
SPAULDING, ALICE A.
STANLEY, HARRY L.
VIEIRA, JOHN R.
WASHINGTON, GEORGE
WELCOME, ASHLEY A.
WILSON, E. A.

WILSON, FRANKLIN T.

SCHOOL COMMITTEE 1910

J. ELZEAR LAMOUREUX, M. D..... President
ARTHUR K. WHITCOMB..... Secretary

Members

Ward 1—EDWARD T. GOWARD.....Term expires 1911
Tel. 172-12. 274 Appleton Street
Ward 2—THOMAS MAHONEY, JR.....Term expires 1911
Tel. 8762-3. 139 Colburn Street
Ward 3—EDMUND T. SIMPSON.....Term expires 1910
Tel. 2296-2. 393 Wilder Street
Ward 4—JOHN H. PYNE.....Term expires 1911
823 Central Street
Ward 5—EUGENE F. TOOMEY.....Term expires 1910
Tel. 2216-1. 168 Lawrence Street
Ward 6—J. ELZEAR LAMOUREUX, M. D.....Term expires 1910
Tel. 414-2. 710 Merrimack Street
Ward 7—JOHN H. LAMBERT, M. D.....Term expires 1911
Tel. 1231-2. 70 Wannalancit Street
Ward 8—FRANKLIN E. JOHNSON.....Term expires 1910
Tel. 1619. 417 Middlesex Street
Ward 9—CRAVAN MIDGLEY.....Term expires 1911
Tel. 2699-3. 169 Meadowcroft Street

Standing Committees

1. ON TEACHERS—Messrs. Lamoureux, Midgley, Toomey.
2. ON FINANCE—Messrs. Midgley, Simpson, Pyne.
3. ON BOOKS AND SUPPLIES—Messrs. Goward, Johnson, Lambert, Mahoney, Pyne.
4. ON EVENING SCHOOLS—Messrs. Simpson, Lamoureux, Johnson Lambert, Toomey.

5. ON HIGH SCHOOL—Messrs. Johnson, Goward, Simpson, Toomey, Pyne.
6. ON SCHOOLHOUSES AND HYGIENE—Messrs. Lambert, Midgley, Mahoney.
7. ON RULES—Messrs. Goward, Lamoureux, Mahoney.

Assignment of Schools

- MR. GOWARD, Ward 1—High, Varnum, Eliot, Kirk Street, Tenth Street, Billings Street, Varnum Kindergarten.
- MR. MAHONEY, Ward 2—Green, Worthen Street, Morrill.
- MR. SIMPSON, Ward 3—High, Lincoln, Franklin, Howard Street, Grand Street, Laura Lee, Dover Street, Powell Street, Lincoln, Dover, Laura Lee and Franklin Kindergartens.
- MR. PYNE, Ward 4—High, Butler, London Street, Weed Street, Agawam Street, Carter Street, Lyon Street, Agawam Street and Chapel Street Kindergartens.
- MR. TOOMEY, Ward 5—High, Edson, Training, Charles Street, Central Street, Ames Street, Cottage Street, Charles Street Kindergarten.
- DR. LAMOUREUX, Ward 6—Training, Greenhalge, West Sixth Street, Lakeview Avenue, Cabot Street, Cheever Street.
- DR. LAMBERT, Ward 7—Bartlett, Pawtucket, Cross Street, New Moody Street, Lexington Avenue, Pawtucket and Bartlett Kindergartens.
- MR. JOHNSON, Ward 8—High, Highland, Washington, Pine Street, Middlesex Village, Pine Street Kindergarten.
- MR. MIDGLEY, Ward 9—Moody, Training, Riverside, Pond Street, High Street, Sycamore Street, Moody Kindergarten.

Assignment of Evening Schools

- MR. SIMPSON—High, Drawing.
- DR. LAMBERT—Bartlett, Green, Cheever.
- DR. LAMOUREUX—Greenhalge, Old Moody, Colburn, Middlesex Village.
- MR. JOHNSON—Mann, Worthen.
- MR. TOOMEY—Edson, Butler, Franklin, Riverside.

Regular Meetings of the School Committee

January	25	July.....	26
February	23	August.....	30
March.....	29	September	27
April.....	26	October	25
May	31	November	29
June	28	December	27

Superintendent of Public Schools

ARTHUR K. WHITCOMB Office, City Hall
Telephone 2728

Office Hours—One hour after the forenoon session of the schools, and
from 10 to 12 o'clock on Saturday forenoon.

Supervisor of Janitors

WM. F. THORNTON..... Home Telephone 1046-5

Supply Agent

HENRY L. WILLIAMS..... Telephone 2727

Truant Commissioners

WM. F. THORNTON
CAMILLE ROUSSIN

HENRY L. WILLIAMS
JOHN J. WALKER

Office—Third Floor of City Hall

Office Hours—12 to 1 o'clock

CHARTER AMENDMENTS, ACTS OF 1896

[CHAP. 415.]

AN ACT TO AMEND THE CHARTER OF THE CITY OF LOWELL.

Be it enacted, etc., as follows :

Section 1. All executive powers which are now by law vested in the City Council of the City of Lowell, or either branch thereof, shall hereafter be vested in and exercised by the Mayor of said city except as hereinafter otherwise provided.

Sect. 2. The Mayor may suspend or remove any executive or administrative officer except as hereinafter provided, for such cause as he shall deem sufficient, and shall set forth in the order of suspension or removal his reasons therefor, provided that no removal shall be made upon partisan grounds. The order of suspension or removal shall not take effect until it is approved by the City Council voting by yeas and nays. The City Council may, by a two-thirds vote of each branch, voting by yeas and nays, remove any of said officers without the consent of the Mayor; provided, however, that nothing contained in this section shall apply to any of the following departments, namely: the School Committee, the Police Commission, the Water Board, the Board of Charities, or the Trustees of the Public Library.

Sect. 3. There shall be a department of supplies, and all material and supplies for the city shall be purchased by the chief or head of such department, subject to the approval of the Mayor. So far as is practicable, purchases shall be after public advertisement and under contract approved by the Mayor. All bills for material and supplies shall show the date of purchase, date of delivery, the unit of price, the quality and quantity of articles purchased and received, the number and date of the order of purchase, and if the purchase is under contract, the number and date of the contract, and shall be entered in full in an invoice book, which shall always be open to public inspection. The chief of this department shall be elected by the qualified voters of the city voting at the annual municipal election, and shall hold his office for the next municipal year thereafter, subject to the provisions of section two of this act.

Sect. 4. The Mayor shall cause to be kept a record of all his official acts, and to aid him in his official duties may appoint one or more clerks.

Sect. 5. The heads of the several departments and offices shall have the power to appoint and employ and discharge all subordinate officers and employees in their respective departments; and they shall keep a record, subject to inspection, of all so appointed and employed and of all discharged, and in all cases of discharge the grounds therefor; provided, however, that no removal shall be made on partisan grounds.

Sect. 6. The heads of the several departments and offices shall have the general charge and management of all matters pertaining to their respective departments, and shall make and execute all contracts necessary therefor, except for the purchase of material and supplies; but every contract made as aforesaid in which the amount involved exceeds three hundred dollars shall be approved by the Mayor before going into effect; provided that nothing in this section shall be construed to prevent the City Council, by ordinance, from transferring any of the duties imposed upon an appointed head of a department by this act or by ordinance, excepting the purchase of material and supplies, to another head of a department or board of commission.

Sect. 7. Neither the City Council nor either branch thereof, nor any committee or member thereof, shall directly or indirectly take part in the employment of labor, the purchase of material, the construction, alteration or repair of any public work or other property, or in the care, custody or management of the same, or in general in the expenditure of public money, or in the conduct of the executive or administrative business of the city, except as may be necessary for defraying the contingent and incidental expenses of the City Council, or of either branch thereof; nor shall they or either of them take part in the making of contracts.

Sect. 8. No sum appropriated for a specific purpose shall be expended for any other purpose; and no expenditure shall be made and no liability shall be incurred by or on behalf of the city until the City Council has duly voted an appropriation sufficient to meet such expenditure or liability, together with all prior unpaid liabilities which are payable therefrom, except that after the expiration of the financial year and before the making of the regular annual appropriations, liabilities payable out of the regular appropriations may be incurred to an amount not exceeding one-sixth of the total of the appropriation made for similar purposes in the preceding year; provided, however, that nothing herein contained shall be construed to restrict or limit the School Committee in any expenditure which it is now, or may be hereafter authorized to make under any general law of the Commonwealth, or to restrict or limit payments on account of the per-

manent or temporary debt, or such as are required by law to be made to the Commonwealth.

Sect. 9. All revenues and all monies accruing to the City of Lowell from any source whatever, except trust funds and the revenues of the Water Department, shall, when collected or paid into the treasury, be carried to one general account, to be known as the General Treasury Fund ; and all appropriations by or on behalf of said city, except from trust funds and on account of the Water Department, shall be from such fund and as provided in section ten of this act.

Sect. 10. All bills or other claims, before they are finally certified by the Auditor or paid, shall pass the inspection of a committee of the City Council on accounts. Said committee shall consist of one member of the Board of Aldermen and two members of the Common Council, to be elected annually by ballot by the body they respectively represent. Said committee may report any such bill or claim to the City Council, with their reasons therefor, and no bill or claim so reported shall be passed by the Auditor, or be paid without the consent of the Council. Said committee may require the opinion of the City Solicitor as to the legality of a bill or other claim.

Sect. 11. A yea and nay vote of the members of the City Council shall be required to pass any order or vote involving the expenditure or appropriation of the public monies, or involving any debt or liability, and said vote shall be entered upon the records of each branch of the City Council.

Sect. 12. Less than a quorum of either branch of the City Council, or of the School Committee, or of the Board of Overseers of the Poor, may adjourn to a fixed day earlier than the next regular meeting, and shall have power to compel the attendance of absent members in such manner as the City Council may by ordinance provide.

Sect. 13. All acts or parts of acts and all ordinances of the City of Lowell inconsistent herewith are hereby repealed and annulled ; provided, that no act or ordinance heretofore repealed shall thereby be revived ; and provided, also, that nothing in this act shall be taken to prohibit the City Council from abolishing any department, board, office or commission created by ordinance.

Sect. 14. The question of the acceptance of this act shall be submitted to the qualified voters of the City of Lowell at the annual State election in the present year, and the affirmative votes of a majority of the voters present and voting thereon shall be required for such acceptance. If so accepted, so much thereof as provides for the election of a Chief of the Department of Supplies shall take effect at the next annual municipal election, and the act shall take full effect on the first Monday in January in the year eighteen hundred and ninety-seven. [Approved May 16, 1896.] (Accepted.)

ACTS OF 1897

[CHAP. 95.]

AN ACT RELATIVE TO THE DUTIES AND POWERS OF CERTAIN OFFICERS OF THE CITY OF LOWELL.

Be it enacted, etc., as follows :

Section 1. The City Council of the City of Lowell, and each branch thereof, shall have and exercise all the power and authority relative to the election or appointment of city officers, or the confirmation of appointments to office, which were vested in them prior to the enactment of section one of chapter four hundred and fifteen of the acts of the year eighteen hundred and ninety-six.

Sect. 2. The Chief of the Fire Department of said city shall be elected by concurrent vote of both branches of the City Council.

Sect. 3. The City Council shall by ordinance determine what officers shall be the heads of the various departments of the City Government. The head of the department of supplies may sell or dispose of the personal property of the city, upon the recommendation of the Mayor and of the head of the department to which such property belongs, except the products of the City Farm, which the superintendent of said farm shall have the right to dispose of.

Sect. 4. All ordinances of said city inconsistent herewith are hereby annulled, and all acts or parts of acts inconsistent herewith are hereby repealed.

Sect. 5. This act shall take effect upon its passage. [Approved February 20, 1897.]

ACTS OF 1898

[CHAP. 173.]

AN ACT RELATIVE TO APPOINTMENTS IN THE FIRE DEPARTMENT OF THE CITY OF LOWELL.

Be it enacted, etc., as follows :

Section 1. The Chief Engineer of the Fire Department of the City of Lowell may, on the recommendation of the Board of Engineers, appoint as members of the permanent force, or as call men, without civil service examination, any person who has served as call or substitute call man in said service for three or more successive years prior to the passage of this act.

Sect. 2. Said Chief Engineer shall have the power to discharge all subordinate officers and employees in the Fire Department of said city,

except the members of said board, and with the approval of said board, to appoint and employ all such officers and employees.

Sect. 3. All acts and parts of acts inconsistent herewith are hereby repealed.

Sect. 4. This act shall take effect upon its passage. [Approved March 15, 1898.]

SEC. 7, CHAP. 26, REVISED LAWS.

No election of a city officer by a municipal body or board shall be valid unless made by a viva voce vote, each member who is present answering to his name when it is called by the clerk or other proper officer, stating the name of the person for whom he votes, or that he declines to vote. The clerk or other proper officer shall record every such vote.

ACTS OF 1905

[CHAP. 337.]

AN ACT TO ABOLISH THE BOARD OF OVERSEERS OF THE POOR AND TO
CREATE A BOARD OF CHARITIES IN THE CITY OF LOWELL.

Be it enacted, etc., as follows :

Section 1. The board of overseers of the poor of the City of Lowell shall be abolished as hereinafter provided, and all its powers, rights, duties and liabilities shall be transferred to a board of charities in the said city. No existing contracts, liabilities or suits shall be affected by this act except as hereinafter provided, but the board of charities hereinafter created shall be in all respects the successor of said board of overseers of the poor.

Sect. 2. Between the fifth day and the fifteenth day of January, nineteen hundred and six, the Mayor shall appoint a board of charities consisting of five persons, residents of the city, who shall hold office for terms of one, two, three, four, and five years, respectively, from the fifteenth day of January, nineteen hundred and six, or until their successors are appointed and qualified ; and thereafter the Mayor shall annually, before the fifteenth day of January, appoint one member of said board to serve for a term of five years from said fifteenth day of January. A vacancy shall be filled in the same manner for the unexpired term. The Mayor shall designate a member to be chairman. The Mayor may remove any member at any time.

Sect. 3. No overseers of the poor shall be elected at the City election of nineteen hundred and five, but the overseers of the poor who were elected for terms ending on the first Monday in January, nineteen hundred

and seven, shall constitute the board of overseers of the poor from the first Monday in January, nineteen hundred and six, until the fifteenth day of January, nineteen hundred and six, when their terms shall expire. The term of office of all officers and employees of the overseers of the poor shall expire on the fifteenth day of January, nineteen hundred and six, or upon the appointment of their successors thereafter.

Sect. 4. The board of charities shall appoint a superintendent of charities, who shall have general executive charge of the department of charities, and shall hold office during the pleasure of the said board. He shall receive such salary as the city council may determine.

Sect. 5. All other officers and employees of the department of charities shall be appointed by the superintendent of charities and hold their offices and positions at his pleasure.

Sect. 6. This act shall be submitted to the qualified voters of the City of Lowell at the annual state election in the present year and shall take effect upon its acceptance by a majority vote of those voting thereon. The question of acceptance shall be placed upon the official ballot directly after the list of candidates and in the following form:—Shall an act passed by the general court in the year nineteen hundred and five, entitled “An act to abolish the overseers of the poor and to create a board of charities in the City of Lowell,” be accepted?

Sect. 7. So much of any act or of any ordinance of the City of Lowell as is inconsistent herewith is hereby repealed or annulled.

Sect. 8. So much of this act as is contained in section six shall take effect upon its passage. [Approved April 26, 1905.] (Accepted.)

ORDINANCES OF THE CITY OF LOWELL

PASSED SINCE 1894.

AN ORDINANCE AUTHORIZING THE CITY TREASURER TO ISSUE REGISTERED CERTIFICATES, NOTES OR BONDS IN EXCHANGE FOR CERTIFICATES, NOTES OR BONDS PAYABLE TO BEARER.

Be it ordained, etc., as follows:

The City Treasurer may, in accordance with the provisions of *Section 5 of Chapter 77 of the Public Statutes, at the request of the owner or holder of any bond, promissory note or certificate of indebtedness of the City of Lowell, at any time while more than one year remains before the principal of such bond, note or certificate is payable, issue in exchange therefor a bond, note or certificate of same effect, payable to the owner or holder by name.

*Now Sect. 4, Chap. 73, Revised Laws.

The City Treasurer may also, under like conditions, issue registered certificates, in substitution for any mutilated, defaced or endorsed bonds, notes or certificates; and where a bond, note or certificate of any issue has been lost or destroyed, the City Treasurer, under the direction of the joint standing committee on finance, may issue in place thereof a new bond, note or certificate of the same effect.

The City Auditor, as well as the City Treasurer, shall keep a register of the dates, numbers and amounts of all bonds, notes and certificates issued by the City Treasurer, showing to whom they were issued, when they are payable, and if issued in exchange, for what they were substituted. [Approved May 12, 1896.]

AN ORDINANCE AMENDING SECTION THIRTEEN OF CHAPTER ONE OF THE REVISED ORDINANCES SO AS TO PROVIDE THAT THE SALARIES AND COMPENSATION OF CITY OFFICERS WHEN ONCE ESTABLISHED SHALL CONTINUE UNTIL RE-ESTABLISHED OR CHANGED.

Be it ordained, etc., as follows :

Section 13 of Chapter 1 of the Revised Ordinances is hereby amended by striking out between the word "year" in the third line of said section and the word "provided" in the sixth line thereof, the following words : "for the year commencing on the first Monday of January next ensuing ; and no change of salary shall be made to take effect during the time for which said salary was established," and inserting in place thereof the following : "provided that when such salaries and compensation shall have been once established, they shall continue until re-established or changed in pursuance of the provisions of this section ; and " so that said section as amended shall read as follows :

Section 13. The salaries and compensation of city officers shall be established in the month of December and after the annual municipal election shall have been held, in each year ; provided, that when such salaries and compensation shall have been once established, they shall continue until re-established or changed in pursuance of the provisions of this section ; and provided that in case any new office shall be created the salary of said newly created office may be fixed at any time ; and the salaries or compensation fixed for the payment of said officers shall be in full for all services performed by them by virtue of their offices ; and all sums of money received by them from any and every source, in discharge of said services, during any quarter of the fiscal year, shall at the expiration of said quarter be by them paid over or accounted for to the City Treasurer. [Approved May 12, 1896.]

AN ORDINANCE REGULATING THE WEIGHING AND MEASURING OF CERTAIN ARTICLES PURCHASED BY THE CITY.

Be it ordained, etc., as follows :

All supplies of hay, grain, straw, coal and any other material purchased for the use of the city or any department thereof exceeding one hundred pounds in weight and usually weighed, shall be weighed on the city scales; and all wood purchased for said city shall be measured by the City Measurer of Wood, and no bills shall be paid by the City Treasurer or approved by any committee for such article so furnished the city, unless the certificate of said weigher or measurer shall accompany or be attached to said bill. [Approved May 12, 1896.]

AN ORDINANCE TO PREVENT THE PLACING OF ASHES, GLASS, CROCKERY, ETC., IN OR ON THE PUBLIC STREETS OR WAYS.

Be it ordained, etc., as follows :

Section 1. Any person who shall put or place, or cause to be put or placed, in or upon any street, lane or alley, or other public place in this city, any ashes, glass, crockery, scrap iron, nails, tacks or any other article which would be liable to injure the feet of children or animals, or the tires of bicycles or other vehicles which have wheels with rubber or pneumatic tires, shall be deemed guilty of a misdemeanor.

Sect. 2. Any person violating the provisions of the preceding section or who is guilty of the misdemeanor therein described, shall be liable to a fine of not less than two dollars or more than twenty dollars for each offence. [Approved October 9, 1896.]

AN ORDINANCE AMENDING SECTIONS ONE AND NINE OF CHAPTER TWENTY OF THE ORDINANCES OF THE CITY OF LOWELL.

Be it ordained, etc., as follows :

Section 1. That Section 1, of Chapter 20 of the ordinances of the City of Lowell be and the same is hereby amended by inserting after the word "engineer" in the second line of said section, the words "a first assistant engineer and three other," and by striking out the word "four" in the second line of said section, and by inserting after the word "removed" in the sixteenth line of said section, the words "the first assistant engineer shall be appointed by the Mayor and Aldermen in the month of March or April, or whenever a vacancy occurs, and he shall enter upon the discharge of the duties of his office on the first day of May of the year in which appointed, if appointed for a full term prior to May of any year, and he shall hold said office for a term of three years from said first day of May, and until his succes-

sor is appointed, or he is removed; and if appointed after the first day of May in any year, he shall enter upon the duties of said office forthwith and shall continue therein until the expiration of the full term as existing at the time of said appointment, or until removed;” and by inserting between the words “said” and “assistant” in the seventeenth line of said section, the word “other;” and by inserting after the word “engineer” in the twenty-eighth line of said section, and before the word “shall” in the twenty-ninth line of said section, the words “and first assistant engineer;” so that said section shall read as follows:

Section 1. The Fire Department shall consist of a Chief Engineer, a First Assistant Engineer, who shall perform such duties as may be required of him by the Chief Engineer, and three other assistant engineers and as many enginemen, hosemen, hook and ladder men and other persons, to be divided into companies, as the number of engines and other fire apparatus of the city shall from time to time require; the Chief Engineer shall be appointed by the Mayor and Aldermen in the month of March or April, or whenever a vacancy occurs, and he shall enter upon the discharge of the duties of said office on the first day of May of the year in which appointed, if appointed for a full term prior to May of any year, and he shall hold said office for the term of three years from said first day of May or until he is removed; and if appointed after the first day of May of any year, he shall enter upon the discharge of the duties of said office forthwith, and shall continue therein until the expiration of the full term as existing at the time of his said appointment, or until removed. The first Assistant Engineer shall be appointed by the Mayor and Aldermen in the month of March or April, and whenever a vacancy occurs, and he shall enter upon the discharge of the duties of his office on the first day of May of the year in which appointed, if appointed for a full term prior to May of any year, and he shall hold said office for a term of three years from said first day of May and until his successor is appointed or he is removed; and if appointed after the first day of May in any year, he shall enter upon the duties of said office forthwith, and shall continue therein until the expiration of the full term as existing at the time of his said appointment, or until he is removed; and the appointment of said other assistant engineers shall be made by the Mayor and Aldermen in the month of March or April annually, and whenever a vacancy occurs, and they shall hold their respective offices for the term of one year from the first day of May succeeding their appointment, or until others are chosen; all other members of the Fire Department shall be nominated by the Board of Engineers, and their names sent to the Mayor and Aldermen, and when by them appointed they shall be members of the Fire Department; provided, that vacancies may be filled at any time, and that the Mayor and Aldermen, may at any time remove any and all of said officers or members; except that the Chief Engineer and First Assistant Engineer shall not be removed without a hearing and cause shown

thereat. No person shall be appointed a member of the Fire Department who does not sustain a good moral character and who is not a citizen of the City of Lowell.

Sect. 2. This ordinance shall take effect upon its passage. [Approved Nov. 27, 1896.]

AN ORDINANCE IN RELATION TO AN ORDINANCE ON OPENINGS AND
EXCAVATIONS IN STREETS AND IMPOSING A PENALTY.

(See Ord. 1898.)

Be it ordained, etc., as follows :

Section 1. No person, firm or corporation shall dig up, make any excavation in, or in any manner change or interfere with the surface or grade of any street for the purpose of laying water, gas or sewer pipes or railway tracks, or for any other purpose, without first giving notice to the Superintendent of Streets, which notice shall state specifically the time when work will be commenced and the probable time within which it shall be completed.

Sect. 2. When any opening or excavation shall be made in any street in pursuance of Section 1, the Superintendent of Streets, by himself or by a servant or agent appointed by him for that purpose, shall see that the surface of such street is left in good order and condition for public travel thereon. The expense for labor and material used in closing and covering such excavation shall in all cases be borne by the party causing the same to be made.

Sect. 3. Said superintendent shall, when about to build a new sewer or repair an old one, notify all the abutters on that part of the line of said sewer when he proposes to do work, so that said abutters may enter said sewer. He shall notify all abutters, when about to construct a new street, at least four weeks before beginning work, and when about to make a new surface of any street, at least two weeks before beginning work, shall notify the Superintendent of Lamps and Water Board and all persons authorized to place any obstructions in such street, and shall require and see that all said departments or persons having any work to be done in the street so designated, shall do all such work before the surface of such street is again prepared for and opened to public travel ; and after the completion of the work then done in such street, shall not permit any department or person who shall have been so notified, for the space of two years, to again disturb the surface of such street or way within the area of such previous disturbance, except in case of obvious necessity, to be verified in writing to, and approved by the Mayor, and except in cases of tracks or leaks in pipes, sewers or wires.

Sect. 4. Any person, firm or corporation who shall dig up, make any excavations, or in any way change or alter the grade or surface of any accepted street, without giving the notice mentioned in Section 1 of this ordinance, shall be punished by a fine not exceeding twenty dollars.

Sect. 5. All ordinances and parts of ordinances, resolutions or orders of the City Council inconsistent herewith, are hereby repealed. [Approved November 27, 1896.]

AN ORDINANCE AMENDING SECTION FIFTEEN, CHAPTER THIRTY-NINE
OF THE REVISED ORDINANCES OF THE YEAR EIGHTEEN HUNDRED
AND NINETY-FOUR.

Be it ordained, etc., as follows :

That Section 15, Chapter 39, of the Revised Ordinances of the year 1894, be, and is hereby amended by striking out of the seventh line the word "forty-third," and inserting in place thereof the word "forty-fifth." [Approved July 21, 1897.]

AN ORDINANCE REGULATING HAWKERS AND PEDDLERS.

[Amended Ord. 1908.]

Be it ordained, etc., as follows :

Section 1. No person shall hawk or peddle, sell or expose for sale within said city any of the articles enumerated in Section 1 of Chapter 68* of the Public Statutes, until he has been duly licensed by and has recorded his name and residence with the Board of Police of the City of Lowell, and has been assigned a number by said board, to be worn in such manner as such board may prescribe. Provided, however, that the foregoing provisions shall not apply to any other person than the one named in the license.

Sect. 2. No person hawking, peddling or selling, or exposing for sale any of the articles enumerated in Section 1 of Chapter 68* of the Public Statutes, shall cry his wares to the disturbance of the peace and comfort of the inhabitants of the city.

Sect. 3. No hawker or peddler shall carry or convey any of the articles enumerated in Chapter 68* of the Public Statutes in any manner that will tend to injure the public health, or disturb the public peace or comfort, nor otherwise than in vehicles and receptacles which have printed on them in letters and figures at least two inches in height the name of the person selling and the number given him by the Board of Police.

*Now Chap. 65, Sect. 15, 16, Revised Laws.

Sect. 4. Whoever violates any of the provisions of the preceding sections of this ordinance shall be liable to a penalty of not more than twenty dollars for each offence. [Approved July 29, 1897.]

AN ORDINANCE TO AMEND SECTION EIGHTEEN OF CHAPTER SIX OF THE CITY ORDINANCES RELATING TO THE HITCHING OF HORSES TO LAMP POSTS.

Be it ordained, etc., as follows :

Section 18 of Chapter 6 of the City Ordinances is hereby amended by striking out all after the word "any" in the third line thereof and inserting instead thereof the words "lamp posts maintained by the city;" so that said section as amended shall read as follows :

Section 18. No owner, driver or other person having the care or ordering of a vehicle shall hitch or fasten the horse or horses attached thereto to any lamp post maintained by the city. [Approved January 1, 1898.]

AN ORDINANCE AUTHORIZING THE CITY TREASURER TO PRESCRIBE THE SYSTEM OF BOOKKEEPING FOR CERTAIN DEPARTMENTS AND OFFICERS RECEIVING MONEY BELONGING TO THE CITY AND PROVIDING FOR MORE FREQUENT RETURNS OF SUCH MONEY TO THE CITY TREASURY.

Be it ordained, etc., as follows :

Section 1. All departments and officers of the City Government except the City Treasurer, whose official duty requires the receipt of money belonging to the city, shall keep such books and records relating to the same as shall be prescribed by the City Treasurer.

Sect. 2. The heads of each department and officers receiving money for the city shall remit to the Treasurer as often as once in each month any balance that may be in the possession of such department or officer belonging to the city, except in case when the time for such payment into the city treasury is prescribed by statute.

Sect. 3. The Joint Committee on Accounts shall annually in connection with the annual examination of the accounts of the City Treasurer, examine, investigate and audit the books and accounts of all departments and officers receiving money for the city, and said committee shall make report of such examination to the City Council.

Sect. 4. All heads of departments and officers whose official duty requires the rendering of bills to individuals, cities or towns for charges of any nature, shall hereafter deliver all such bills to the City Treasurer for collection through his office.

Sect. 5. Section 9 of Chapter 1 of the Revised Ordinances and all ordinances and parts of ordinances inconsistent herewith are hereby repealed. [Approved January 1, 1898.]

AN ORDINANCE PROVIDING FOR ESTIMATES FOR APPROPRIATIONS AND FOR OTHER PURPOSES.

Be it ordained, etc., as follows :

Section 1. At the beginning of each municipal year and not later than the third Tuesday in January the Mayor shall make and transmit to the City Council an estimate of the expenditures required for the year. Such estimate shall be framed and itemized so as to show separately :

Par. 2. The amounts required by each department, office, board, commission or other sub-division of the executive branch of the government, and so far as may be practicable for the sub-division of the work of each department.

Par. 3. The salary or compensation of each officer, deputy, assistant, clerk, or employee of the city not classed as a laborer. The amounts required for labor shall, when practicable, be stated separately from those for materials and supplies.

Par. 4. Such estimates shall be in such form as to show in parallel columns, opposite each item, the amount paid for the previous year, and the amount unexpended at the close of such year.

Sect. 2. The Mayor shall make or cause to be made, and shall transmit to the City Council with the estimate required by the preceding section :

Par. 2. An itemized estimate of the revenues of the year from all sources except taxation of real and personal property and polls.

Par. 3. A statement of the balance unpaid at the close of the previous year on account of temporary loans, and the amount due by financial years, as unpaid taxes on real and personal property and polls.

Par. 4. An itemized statement of the debt, with interest becoming due during the year, and the margin available for loans within the debt limit for the year.

Par. 5. An itemized statement of all orders, etc., of the City Council involving expenditures which have not been appropriated for. In all cases the finances of the water service shall be shown separately.

Sect. 3. All regular annual appropriations shall be for and only applicable to the liabilities incurred during the year in which they are made, any form of phraseology in the order, resolution or vote providing for the same, to the contrary notwithstanding.

Par. 2. It shall be the duty of the Auditor to close all regular annual appropriation accounts with the last secular day in December of the year for which the appropriations are made, and to credit the general treasury fund account or accounts with the water service, as the case may be, with

the balance to the credit of such appropriations ; and thereafter no payment shall be made under such appropriations. He shall promptly report to the City Council the amount of each balance thus credited, and amount available in the general treasury fund, and the account with the water service, for the expenditures of the current year not otherwise appropriated.

Par. 3. All claims, accounts, and bills against the City of Lowell under such appropriations remaining unpaid at such date, shall be numbered consecutively, and be entered by the Auditor in such order, in a permanent book of record, to be known as the register of claims, so as to show the name of the claimant, the amount claimed and allowed, the nature of the service and the action had thereon. The Auditor shall transmit to the City Council, on or before the first regular meeting night in February, of either branch of the City Council, a schedule of such claims with a condensed statement of the nature of each claim, and the action had thereon.

Sect. 4. The several estimates and statements called for by this ordinance shall on their receipt by either branch of the City Council be referred, without other action, to the Joint Committee on Appropriations.

Par. 2. The Committee on Appropriations shall consist of the Chairman and two additional members of the Board of Aldermen and the President and three additional members of the Common Council.

Par. 3. "Said committee shall meet monthly and examine all monthly financial reports. Suggestions pertaining to the improvement of any department may be transmitted to the City Council whenever deemed advisable." [Amendment 1906.]

Section 6 of Chapter 1 of the Ordinances of the City of Lowell is hereby repealed.

Par. 3. Said committee shall have access to all or any of the records and official papers of the city, shall have power to require from any officer or employee of the city such additional statement or statements relating to the expenditures and revenues of the city as it may deem essential, and to summon any officer or employee of the city to be present at any designated meeting of said committee ; and to remain in attendance until discharged by the committee ; and any officer or employee who shall fail or refuse to comply with such request, order or summons, may be reported to the City Council or either branch thereof, for such action as it may have the power to take and see fit to exercise.

Sect. 5. The Committee on Appropriations shall make a final report in print, not exceeding two hundred copies, to the City Council or either branch thereof, on or before the fifteenth day of February of each year, unless granted further time by the City Council.

Sect. 6. All ordinances or parts of ordinances conflicting with this ordinance are hereby repealed. [Approved January 1, 1898.]

AN ORDINANCE PROVIDING FOR THE APPOINTMENT OF AN INSPECTOR OF WIRES AND DEFINING THE DUTIES OF SUCH OFFICER, IN ACCORDANCE WITH CHAPTER FOUR HUNDRED AND FOUR, ACTS OF 1890*.

Be it ordained, etc., as follows :

Section 1. Within thirty days after the passage of this Ordinance, there shall be appointed by the Mayor, subject to confirmation by the Board of Aldermen, an Inspector of Wires for the City of Lowell, who shall enter upon the duties of his office immediately, and shall hold said office, unless sooner removed, until the first day of February, 1901; and prior to the first day of February, 1901, and prior to the first day of February of every third year thereafter, there shall be appointed in like manner an Inspector of Wires who shall hold his office during a term of three years and until his successor is appointed, unless sooner removed in the manner prescribed by law.

Sect. 2. Said Inspector of Wires shall perform the duties prescribed by Section 3, Chapter 404 of the Acts of 1890,* and such other duties as are or may be hereafter prescribed by the laws of the Commonwealth or the ordinances of the city. He shall annually in the month of January make a report to the City Council of the business of his office for the year ending the thirty-first day of December next preceding. [Approved July 15, 1898.]

AN ORDINANCE RELATING TO THE PERMANENT REPAIRS ON STREETS AND THE PLACING OF UNDERGROUND SERVICES THEREIN ; ALSO TO THE NECESSARY REPAIRS OF SAME.

Be it ordained, etc., as follows :

Section 1. That before any street is paved with granite, concrete or other paving, macadamized or otherwise put in permanent repair by the city, the owners of land abutting on such street shall be notified at least four weeks previous to the time when such permanent improvements are to be commenced, that all underground services, whether for sewer, water, gas, electrical or other connections, shall be constructed and placed in said street previous to the date set for the making of said permanent improvements.

Sect. 2. That all corporations or individuals having services laid in said street, or intending or desiring to construct the same, whether for gas, electric, telephone, telegraph or for any service of whatsoever nature, or who shall desire to renew or repair services already constructed, shall be notified by the posting of a notice at the City Hall of the intention of the city to so repair such street, and by a notice which shall be published for six consecutive days in one morning and one evening newspaper printed in

*Now Chap. 122, Revised Laws.

the City of Lowell, the last publication of said notice to be at least three weeks previous to the time stated for making said permanent improvements.

Sect. 3. That when any street has been so paved, macadamized, or otherwise put in permanent repair, it shall not be opened or torn up for the placing of any new underground construction of any nature whatsoever during five years next succeeding the date in said published and posted notices stating the intention of the city to place said street in permanent repair; provided, however, that in case repairs to any service become necessary, the same may be made after a permit has been granted by the Board of Aldermen, and said repairs shall be made under the supervision of the Superintendent of Streets. In case of leakage of gas or water pipes, the same may be repaired at once by the Gas Company or Water Board, and the surface of the street placed in a condition satisfactory to the Superintendent of Streets.

Sect. 4. Wherever on said street there may be unimproved land, and where no sewer, gas, water or other necessary services have been constructed, the same shall be laid and constructed, to a point at least two feet beyond the outside line of the sidewalk on said street, one each of the services mentioned for gas, water and sewer connections, for each fifty feet of frontage of the said land on said street, or at such distances as may be agreed upon by the owner of said land and the Superintendent of Streets. In case of neglect of the owner or of a corporation or individual to construct the same, said service for sewer, water and gas connections may be constructed by the city, and shall be paid for by the parties to whom rightfully belongs the construction of the same.

Sect. 5. Any violation of the foregoing conditions in regard to the digging up of streets shall be punished by a fine of not less than twenty dollars (\$20.)

Sect. 6. All ordinances and parts of ordinances inconsistent herewith are hereby repealed. [Approved August 5, 1898.]

AN ORDINANCE PROVIDING FOR THE APPOINTMENT OF A SUPERINTENDENT AND ASSISTANT SUPERINTENDENT OF STATE AID.

(Amended Ord. 1910.)

Be it ordained, etc., as follows :

Section 1. Within thirty days after the passage of this ordinance there shall be appointed by the Mayor, subject to confirmation of the Board of Aldermen, a Superintendent of State Aid and an Assistant Superintendent of State Aid for the City of Lowell, who shall enter upon the duties of their offices immediately and shall hold said offices, unless sooner removed, until the first day of February, 1899; and prior to the first day of February, 1899.

and prior to the first day of February of every year thereafter, there shall be appointed in like manner a Superintendent of State Aid and an Assistant Superintendent of State Aid, who shall hold their offices during the term of one year and until their successors are appointed, unless sooner removed in the manner prescribed by law.

Sect. 2. Said Superintendent of State Aid shall disburse state aid and city aid under the direction of the Mayor and Board of Aldermen as prescribed by *Chapter 279 of the Acts of 1893, *Chapters 279 and 301 of the Acts of 1894, *Chapter 279 of the Acts of 1896, *Chapter 561 of the Acts of 1898, or any other laws of the Commonwealth, or that may be hereafter prescribed by the ordinances of the city. He shall annually, in the month of January, make a report to the City Council of the business of his office for the year ending on the thirty-first of December next preceding.

Sect. 3. Said Assistant Superintendent of State Aid shall perform such duties as may be prescribed by the Superintendent of State Aid. [Approved September 27, 1898.]

AN ORDINANCE AMENDING SECTION SIX OF CHAPTER NINE OF THE
REVISED ORDINANCES OF THE CITY OF LOWELL.

Be it ordained, etc., as follows:

That Chapter 9 of the Revised Ordinances of the City of Lowell be amended by striking out Section 6 and substituting therefor the following:

Sect. 6. The City Treasurer shall receive and have the care and custody of all sums of money paid the city by persons for the perpetual care of lots in any of the city cemeteries, and give the vouchers of the city therefor, and money so received shall constitute a special fund to be known as the "Cemetery Fund for the perpetual care of lots." The Treasurer shall not receive a sum of money less than one hundred dollars (\$100.00) for the perpetual care of lots in any of the city cemeteries or public burial grounds. The Treasurer shall notify the Superintendent of the cemetery of all such payments, together with the description of the lots and graves on account of which such payments are made, and annually at such time as the Trustees of Public Burial Grounds request, shall pay over to them four per centum as interest upon all sums so paid to and receipted by him. The Treasurer shall invest the moneys of this fund in securities in which by law the funds of savings banks may be invested, and pay the amount of interest realized thereon into the city treasury. [Approved October 11, 1898.]

*Now Chap. 79, Revised Laws.

AN ORDINANCE ESTABLISHING AN INSPECTION OF WIRES DEPARTMENT
AND GOVERNING THE SAME.

Be it ordained, etc., as follows:

Section 1. An Inspection of Wires Department is hereby established, of which the Inspector of Wires shall be the head.

Sect. 2. The Inspector of Wires shall have supervision of all electric and other wires erected upon, over or under any street, way or building, and of every wire within any building where such wire is designed to carry an electric current, and shall have authority over, and shall inspect such wires, their condition, attachments, insulation, supports and appliances; he shall require all persons and corporations owning or operating wires to place and arrange all posts, arms, fixtures, insulating supports, attachments and appliances so as to secure safety to life and property, and shall see that the provisions of *Chapter 404 of the Acts of 1890 and all other laws, ordinances, and regulations relating to electric and other wires are strictly enforced, and shall give prompt notice to any person or corporation owning or operating any such wire, when in his judgment the same is unsafe, or is not placed, kept and maintained in accordance with the requirements of said chapter or the provisions of any other law, ordinance or regulation.

Sect. 3. Said inspector shall, at least once in each year, inspect all posts supporting electric or other wires upon or over any street or building, and all supports of such wires when attached to buildings, and ascertain if said posts and supports are kept in proper condition and not weakened by decay or other causes; and in case any person or corporation owning, leasing or operating wires shall neglect or refuse to maintain said supports in proper condition for safety, the inspector shall cause said fixtures and supports to be put in proper condition at the expense of the person or corporation owning or operating the same, after first giving the person or corporation due notice in writing of his intended action.

Sect. 4. It shall be the duty of the inspector to cause to be removed all dead wires of whatever nature attached to buildings, if, in his judgment, they are in a dangerous condition or liable to become dangerous to life or property, and he shall notify in writing the person or corporation owning, leasing or operating such wires of his desire for the removal of any wire, and give them at least ten days in which to comply with the requirements, except in cases in which, in his judgment, there is immediate liability of injury to person or property from the wire and in all such cases the notice shall require their removal forthwith. In the event of the refusal of any person or corporation to take proper action, the inspector may cause the work to be done and the expense to be charged to the owners.

*Now chap. 122, Revised Laws.

Sect. 5. No person or corporation shall allow any piece of wire to be left on the surface of any street or sidewalk, or to permit unused fixtures, coils or loose ends of wire to remain attached to any cross-arm or post more than twenty-four hours without special permission.

Sect. 6. Every person or corporation operating electric or other wires over or under any street, way or building in the city, upon request of the inspector shall furnish within fifteen days thereafter, accurate lists of the posts, or other supports of their wires, the location of conduits and man-holes, with information as to location, where and what service is rendered, whether telegraphic, telephonic, power or electric lighting, and in the latter case, whether arc or incandescent current is used.

Sect. 7. The said inspector, upon request, shall also be furnished by any person or corporation operating or owning electric wires with such information as to kind, size and tested strength of supporting or service wires, the maximum volts used, together with such other information as may be necessary to the faithful and effectual discharge of his duties.

Sect. 8. All wires, appliances and apparatus in the interior of public buildings or on private premises which are intended for the transmission of electricity, either for isolated lighting or power, or to be connected with an outside circuit, shall be made, placed and arranged, and at all times kept safe to the satisfaction of the inspector; and said inspector may at all proper and reasonable times have access to such wires and apparatus.

Sect. 9. In no case shall a current of electricity be connected to any system of wiring or apparatus intended to be used for power or lighting without permission first being obtained and a written permit granted by the Inspector of Wires; the jurisdiction of the inspector is intended to include all public and private electrical systems that are now and may hereafter be installed in the City of Lowell.

This ordinance is not intended to govern or call for the inspection of electric bell systems, private or public telephones inside of public or private buildings, or the interior apparatus or boxes of the fire alarm or police system of the city.

Sect. 10. No person or corporation shall change the position or make additions to any wiring system, or install any new work or electrical apparatus without first notifying the inspector, and he given full opportunity to inspect the same before such work is completed; and when any electric wires designed to carry an electric light or power current are to be concealed, the inspector must be notified before work is commenced, and he shall give his permission and approval for all such work and connections immediately, unless in his judgment such apparatus or wiring endangers life or property or is not in accordance with the laws and ordinances, or in conformity with the established insurance rules.

Sect. 11. The inspector shall require that the established rules and regulations of the National Board of Fire Underwriters shall be complied with, both for outside and interior construction.

Sect. 12. It shall be the duty of the Inspector of Wires to carry out any order of the Mayor and Board of Aldermen on any matters referred to him by them, coming under the laws or ordinances, and all questions of right and authority shall be determined by the Mayor and Board of Aldermen upon any appeal or refusal of any person or corporation to comply with the requirements of the inspector and the laws and ordinances.

Sect. 13. The Inspector of Wires shall keep a record of all inspections and permits in a book provided for the purpose and this book shall be open to inspection (at all resonable times) by any interested parties.

The inspector shall make monthly reports of his doings to the Mayor and Board of Aldermen, and an annual report to the City Council.

Sect. 14. Whoever violates or fails to comply with any of the provisions of this ordinance after being duly notified in writing by the inspector, shall forfeit and pay for each offence not less than ten nor more than twenty dollars.

Sect. 15. The Inspektor of Wires shall be on duty eight hours per day, from 9 A. M. till 5 P. M. each regular working day, and at such other times as cases of emergency may require, and shall receive such compensation as may be determined by the City Council. Said inspector shall devote his whole time to the service of the city, and shall engage in no other business or calling. [Approved July 26, 1899.]

AN ORDINANCE PROHIBITING HEAVY TEAMING AND TRUCKING UPON THE
SPEEDWAY PORTION OF THE PAWTUCKET BOULEVARD.

Be it ordained, etc., as follows :

Section 1. The driving or drawing of heavy wagons, carts, trucks or similar vehicles used for the purposes of transportation of stone, lumber, coal, ice, express packages, groceries, or other merchandise requiring for the transportation of the same a vehicle exceeding in weight a family carriage, buggy, carry-all or similar vehicle used principally for pleasure driving or recreation, is hereby prohibited upon that portion of Pawtucket Boulevard, commonly called the Speedway : provided, however, that this prohibition shall not apply to any vehicle used for the purpose of transporting any article or material necessary for the improvement or repair of said speedway or of any portion of said Boulevard, or of the structures connected with the water plant in said Boulevard.

Sect. 2. Any person who shall violate any provision of Section 1 of this ordinance shall be punished by a fine not exceeding twenty dollars for each offence. [Approved July 31, 1900.]

AN ORDINANCE ESTABLISHING THE OFFICE OF CLERK OF COMMITTEES.

Be it ordained, etc., as follows :

Section 1. There shall be a Clerk of Committees, to be chosen by concurrent vote of both branches of the City Council as soon as may be after the enactment of this ordinance, who shall enter upon the duties of his office immediately after his election, and hold the same for a period of three years from and after January 1, 1901, and until his successor is elected and qualified. Thereafter the City Council shall, in the month of January following the expiration of each three year term, choose a Clerk of Committees who shall hold office for three years. Such Clerk of Committees shall receive such compensation as the City Council shall determine.

Sect. 2. He shall make a proper record in books kept for the purpose, of all proceedings and transactions, and keep a calendar of all meetings of the committees of which he is clerk. He shall perform such other duties and services, in making estimates and computations, drawing orders and reports, and rendering assistance, as such committees shall require.

Sect. 3. On the request of the chairman of any committee, the said Clerk of Committees shall authorize the City Messenger to notify all committee members of the time and place of meeting.

Sect. 4. This ordinance shall take effect upon its passage. [Passed December 18, 1900.]

AN ORDINANCE RELATING TO ADVERTISING BILLS AND POSTERS.

(Amended, ordinance 1902.)

Be it ordained, etc., as follows :

Section 1. No person, firm or corporation shall distribute or cause to be distributed in or upon any street, way, common or place within the limits of the City of Lowell, or post or cause to be posted on any bill-board, fence, wall or structure, or shown in windows, any card, circular, bill, lithograph or advertisement whatsoever, containing any cut, photograph, painting or pictorial representation of any kind, for the purpose of advertising or calling attention to any show, circus, play or exhibition, whether given, or to be given, within or without the City of Lowell, without having first submitted the same to the Supt. of Police and obtaining his approval thereof, and of such distributing or posting. And no such card aforesaid, bill or advertisement shall be distributed or posted, as aforesaid, without having attached thereto or printed or pasted thereon, a statement that it has been approved by the Supt. of Police of Lowell, and the date of such approval.

Sect. 2. Whoever violates the provisions of this ordinance, shall, on conviction thereof, be punished by a fine not exceeding twenty dollars for each offence.

Sect. 3. This ordinance shall take effect upon its passage. [Approved December 27, 1901].

AN ORDINANCE RELATING TO THE APPROVAL OF BILLS AND CLAIMS PAYABLE FROM THE APPROPRIATION FOR INCIDENTALS.

Be it ordained, etc., as follows :

Section 1. Every bill and claim against the city which, if correct, would be chargeable to the Appropriation for Incidentals, shall, before being passed by the Committee on Accounts, be submitted to the Mayor, who shall examine the same and endorse thereon a statement that he does or does not object to the payment of the same or any of the items thereof. He shall then return such bill or claim to the City Auditor or the Committee on Accounts, and if he objects to the payment of said bill or claim, in whole or in part, he shall submit to said auditor or to said committee with said bill when so returned, a specific statement in writing signed by him of his objections thereto and his reasons for such objection. [Approved December 27, 1901.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED "RELATING TO ADVERTISING BILLS AND POSTERS."

Be it ordained, etc., as follows :

That the ordinance entitled "Relating to advertising bills and posters," passed by the City Council and approved by the Mayor December 27, 1901, be and is hereby amended by striking out all after the enacting clause and inserting in place thereof, the following :

Section 1. No person, firm or corporation shall distribute, or caused to be distributed in or upon any street, way, common or place within the limits of the City of Lowell, or post or cause to be posted on any bill-board, fence, wall or structure, or shown in windows, any card, photograph, painting and pictorial representation of any kind for the purpose of advertising or calling attention to any burlesque show, whether given or to be given within or without the limits of the City of Lowell ; nor shall any person, firm or corporation distribute or cause to be distributed within the limits of the City of Lowell any pamphlet or circular containing advertise-

ments therein of aphrodisiac cures, without having first submitted the same to the Superintendent of Police and obtaining his approval of such posting and distributing. And no such card, bill, pamphlet, circular or advertisement aforesaid shall be posted or distributed without having attached thereto, or printed or pasted thereon, a statement that it has been approved by the Superintendent of Police of the City of Lowell, and the date of such approval.

Sect. 2. No person, firm or corporation shall throw, deposit, drop or leave, nor cause to be thrown, deposited, dropped or left in any highway or upon the doorsteps or within the hallway of any dwelling house within the limits of the City of Lowell, any sample of medicinal or toxic substance, either in package or bulk, and shall leave such sample of medicinal or toxic substance in a dwelling house only with the consent and approval and in the possession of an adult occupant.

Sect. 3. Whoever violates the provisions of this ordinance, shall on conviction thereof, be punished by a fine not exceeding twenty dollars for each offence.

Sect. 4. This ordinance shall take effect upon its passage. [Approved 1902.]

AN ORDINANCE REGULATING THE OPERATION OF MOTOR CYCLES IN THE CITY OF LOWELL.

Be it ordained, etc., as follows :

Section 1. No motor cycle shall be ridden upon the streets, avenues, boulevard, parks or commons of the City of Lowell, unless the motor of such cycle shall be fully covered and provided with mufflers designed expressly to deaden the noise of a motor cycle.

Sect. 2. Any person who violates the provisions of the preceding section, shall be punished by a fine not exceeding ten dollars for each offence.

Sect. 3. This ordinance shall take effect upon its passage. [Approved 1902.]

AN ORDINANCE AMENDING SECTIONS 12 AND 16 OF CHAPTER 39 OF THE REVISED ORDINANCES.

Be it ordained, etc., as follows :

That Section 12 of Chapter 39 of the Revised Ordinances be amended by striking out the words "board of aldermen" in the fifth and sixth lines of said section, and inserting instead thereof the words "Superintendent of Streets;" and that Section 16 of said chapter be amended by striking out the words "Superintendent of Streets," and by striking out the word "they" in the fourth line and inserting instead thereof the words "board of aldermen;" so that said sections shall read as follows :

Sect. 12. No person shall break or dig up the ground in any street, townway, highway, or common and public passageway, in the city, nor erect any staging for building thereon, or pile or deposit thereon any earth, bricks, lumber, or other building material, without a written license from the Superintendent of Streets, and without faithfully complying with the conditions of such license.

Sect. 16. In all cases in which license may be given by the Superintendent of Streets to obstruct any highway, street, townway or passageway as described in the twelfth section of this chapter, the Board of Aldermen may impose such reasonable conditions and limitations with regard to the erection of barricades, the maintaining of lights and the taking of other precautions for the security of travelers and passengers as they may consider necessary.

This ordinance shall take effect upon its passage. [Approved October 9, 1903.]

AN ORDINANCE AUTHORIZING THE SUPERINTENDENT OF POLICE TO PARTITION OFF STREETS, WAYS OR SIDEWALKS FOR THE PROTECTION OF THE PUBLIC.

Be it ordained, etc., as follows :

Section 1. For the protection and safety of the public, the Superintendent of Police is authorized to partition off with rope, wire or other material, any portion or portions of any street, way or sidewalk within the limits of the City of Lowell on the occasion of any public observance, celebration or procession, or upon any other occasion when, in the opinion of the said Superintendent of Police, it becomes necessary.

Sect. 2. This ordinance shall take effect upon its passage. [Approved October 9, 1903.]

AN ORDINANCE TO PROVIDE FOR THE ELECTION OF A CITY PHYSICIAN,
AND DEFINING HIS DUTIES.

Be it ordained, etc., as follows :

Section 1. There shall be a City Physician, to be chosen by concurrent vote of both branches of the City Council as soon as may be after the enactment of this ordinance, who shall enter upon the duties of his office upon December 1, 1905, and hold the same, unless sooner removed therefrom in the manner provided by law, for a period of three years from and after said December 1, 1905, and until his successor is elected and qualified. Thereafter the City Council shall, in the month of October or November immediately preceding the expiration of each three-year term, choose a City Physician who shall hold office for three years from the first day of December following and until his successor is chosen and qualified unless sooner removed therefrom in the manner provided by law. Whenever a vacancy occurs the City Council shall choose a City Physician who shall fill the remainder of the unexpired term, unless sooner removed in the manner provided by law.

Sect. 2. It shall be the duty of the City Physician to attend upon all patients under the care of the city authorities at the City Farm or Police Station; to make a report annually in April to the City Council covering the services rendered by him during the previous year. In case of an alarm by an infectious or contagious disease to give to either branch of the City Council or any committee thereof all such professional advice and counsel as they may request of him, and generally to perform such other professional services as may be reasonably required of him by the Mayor or the City Council, or the Superintendent of the City Farm.

Sect. 3. The ordinance approved June 27, 1900, entitled "An Ordinance to provide for the election of a City Physician and defining his duties" is hereby repealed, said repeal to take effect December 1, 1905.

Sect. 4. This ordinance shall take effect upon its passage. [Approved December 9, 1905.]

AN ORDINANCE TO CREATE A COMMISSION TO ACQUIRE A SITE AND TO
RE-BUILD HUNTINGTON HALL.

Be it enacted, etc., as follows :

Section 1. There shall be chosen in the manner hereinafter provided, four citizens of Lowell who shall hold no other municipal office, who, together with the Mayor for the time being, ex-officio, shall constitute a commission to be known as the Huntington Hall Commission. The members of said commission shall not receive any salary or emolument for their services, and shall, unless sooner removed in the manner provided by law, hold

their respective offices until the completion of the building hereinafter mentioned; and upon the declaration of the Mayor in writing filed with the city clerk that the work contemplated by this ordinance has been fully completed, the authority of said commission shall cease and determine.

Sect. 2. Within thirty (30) days after the enactment of this ordinance, the Board of Aldermen and the Common Council shall meet in joint convention and elect four persons as above specified to be members of said commission. If any member so elected shall decline to serve, or if by the death, resignation or removal from office of any member of said commission a vacancy shall exist, the City Council shall, in joint convention elect a new member to fill such vacancy.

Sect. 3. Said commission shall have the general charge and management of all matters pertaining to the erection of a new public hall to take the place of Huntington Hall recently destroyed by fire; shall select and purchase or otherwise acquire a site therefor, and shall do, or cause to be done, all things necessary for the erection of a suitable and commodious public hall with such appurtenances and furnishings as they may deem proper. They shall make all contracts in relation thereto, except for the purchase of material and supplies, but no contract so made involving the expenditure of more than three hundred dollars (\$300) shall be valid and binding upon the city until approved by the Mayor in writing; and no expenditure shall be made by said commission under the authority of this ordinance until the City Council has duly voted an appropriation therefor.

Sect. 4. The chairman of the Board of Aldermen and the president of the Common Council shall constitute a committee to submit to said joint convention a list of four names as nominees for commissioners; such names shall be voted on separately, and in case of failure to elect any one or more of the persons so named, new names shall be submitted by said committee until four persons shall have been elected, who, together with the Mayor, shall constitute such commission. [Approved May 15, 1906.]

AN ORDINANCE REQUIRING THE ASSESSORS OF TAXES TO PUBLISH
CERTAIN INFORMATION.

(Amended Ord. 1908)

Be it ordained, etc., as follows :

Section 1. Beginning March 1, 1907, and every two years thereafter, the Assessors of Taxes of the City of Lowell, shall cause to be printed at the expense of their department for general distribution, ten thousand (10,000) copies of a list which shall contain the following information properly arranged : Names of all real and personal estate taxpayers in the City of Lowell; location of real estate; valuation of land per foot; buildings and personal property, and total tax assessed. [Approved December 15, 1906.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED, "TO PROVIDE FOR THE CREATION AND ORGANIZATION OF THE BUILDINGS DEPARTMENT AND TO REGULATE THE CONSTRUCTION, ALTERATION, MAINTENANCE, REPAIR AND REMOVAL OF BUILDINGS WITHIN THE CITY OF LOWELL."

Be it ordained, etc., as follows :

That the ordinance entitled, "To provide for the creation and organization of the Buildings Department and to regulate the construction, alteration, maintenance, repair and removal of buildings within the City of Lowell," be and the same is hereby amended as follows :

By adding at the end of Section 34 the following : "Buildings devoted to manufacturing purposes and equipped with automatic sprinklers shall be exempt from the provisions of this section."

By adding after the fourth paragraph of Section 51 the following : "Stairways in buildings devoted to manufacturing purposes and equipped with automatic sprinklers shall be constructed in accordance with the requirements of state authorities." [Approved December 15, 1906.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED, "PROVIDING FOR ESTIMATES FOR APPROPRIATIONS AND FOR OTHER PURPOSES."

Be it ordained, etc., as follows :

That the ordinance entitled, "Providing for estimates for appropriations and for other purposes," be amended by adding after paragraph 2 of section 4 the following :

Paragraph 3. Said committee shall meet monthly and examine all monthly financial reports. Suggestions pertaining to the improvement of any department may be transmitted to the City Council whenever deemed advisable. [Approved December 15, 1906.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED, "TO PROVIDE FOR THE CREATION AND ORGANIZATION OF THE BUILDINGS DEPARTMENT AND TO REGULATE THE CONSTRUCTION, ALTERATION, MAINTENANCE, REPAIR AND REMOVAL OF BUILDINGS WITHIN THE CITY OF LOWELL."

Be it ordained, etc., as follows :

That the ordinance entitled, "To provide for the creation and organization of the Buildings Department and to regulate the construction, alteration, maintenance, repair and removal of buildings within the City of Lowell," be and the same is hereby amended as follows :

By striking out in Section 74 all after the first paragraph and inserting in place thereof the following :

SYSTEM OF GAS PIPING. In all systems of gas piping hereafter constructed in any building in the City of Lowell, the size of pipes shall not be less, and the length of pipes shall not be greater, in respect to the number of openings to be used thereon, than those specified in the following table:

Size of Pipe	Greatest Length Allowed	Greatest Number of Openings
$\frac{3}{8}$ inch	20 feet	4
$\frac{1}{2}$ "	30 "	12
$\frac{3}{4}$ "	70 "	30
1 "	100 "	60
$1\frac{1}{4}$ "	150 "	85
$1\frac{1}{2}$ "	200 "	135
2 "	300 "	250
$2\frac{1}{2}$ "	400 "	375
3 "	550 "	600
4 "	750 "	1000

A gas stove shall be considered the same as six openings and $\frac{1}{2}$ inch pipe shall be used.

No $\frac{1}{4}$ inch pipe shall be used unless exposed and for not more than one or two burners.

PIPES SHALL NOT BE COVERED BEFORE INSPECTED. The pipe used shall be of the best quality and fittings must be malleable iron or brass. All pipes shall be suitably supported and stayed with pipe hooks, straps and screws. All pipe must be run at least level, and joists notched not more than twelve (12) inches from bearings. All pipes must be run on top of joists and only in case where it is impossible to run otherwise should pipes be run on strip furring. All split pipes must be removed. Pipes must be free from traps, and no drips will be allowed except where absolutely necessary. No cement shall be used in the pipes or fittings, and pipes shall not be painted or covered before inspection is made. When outlets are not in close proximity to studding or joists, a notched wooden cross piece must be fastened to secure the same. All drops or outlets must not be less than $\frac{3}{8}$ inch. All main risers shall be run in inside partition or exposed. Riser pipe or main outlet from meter must not be less than $\frac{3}{4}$ inch. In blocks or store buildings, each apartment or store must be provided with a separate riser. Each gas meter shall be located subject to the approval of the Inspector of Buildings. Service pipes shall be run inside of the building. Both connections with meter shall be made by the Gas Company. All pipes must be tested at five (5) pounds pressure in the presence of the Inspector and must be approved by him.

MUST BE APPROVED BY THE INSPECTOR. No extension or alteration of any existing system of gas piping in any building shall be made without the inspection and approval of the Inspector of Buildings, or in cases where more than forty (40) feet of exposed gas piping and more than three out-

lets are put in, or six feet of concealed piping with one opening. In case of small jobs, notice of such work must be sent to the Inspector of Buildings, giving an outline of the work to be done, location and owner's name.

In first, second and third class buildings and buildings of six or more tenements each supply pipe leading from street mains shall be provided with a stop cock, placed in the sidewalk at or near the curb, and so arranged as to allow of shutting off at that point by means of a suitable wrench. [Approved December 12, 1907.]

AN ORDINANCE TO PROVIDE FOR PENSIONING FIREMEN.

Be it ordained by the City Council of the City of Lowell, as follows :

Section 1. The Board of Engineers of the Fire Department, subject to the conditions hereinafter stated, may retire on pension any member of the fire department who, by reason of permanent disability incurred while in the performance of his duty as fireman, call-fireman or substitute call-fireman is no longer able to perform active service as a fireman.

Sect. 2. The city physician shall examine every person recommended by said Board of Engineers for a pension, and shall then, and annually thereafter, furnish to said Board of Engineers a written statement of the physical condition of the person recommended, so far as it shows his permanent inability to perform active service as a fireman, call-fireman or substitute call-fireman.

Sect. 3. A pension granted to a chief engineer shall not be less than one half the salary received by him at the time the disability was incurred.

A pension granted an assistant engineer shall be one half the salary received by the first assistant engineer at the time the disability was incurred.

A pension granted any other member of the fire department shall be one half the salary of a permanent man at the time the disability was incurred.

Sect. 4. This ordinance shall take effect upon its passage. [Approved December 14, 1907.]

AN ORDINANCE RELATING TO THE SEALER OF WEIGHTS AND MEASURES. (Amended Ord. 1909.)

Be it ordained by the City Council of the City of Lowell, as follows :

Section 1. The Sealer of Weights and Measures shall be the head of the Department of Weights and Measures. He may employ necessary laborers and assistants.

Sect. 2. The Sealer of Weights and Measures shall be appointed by the Mayor and Aldermen annually in the month of March, and shall hold

his office for the term of one year from the first day of April in the year of his appointment, and until his successor is duly appointed and qualified. The Mayor and Aldermen may at any time remove such Sealer and appoint another in his place.

Sect. 3. For the year beginning the first day of April 1908, the Sealer of Weights and Measures shall receive as full compensation for his services, a salary of twelve hundred dollars (\$1200.00), any order, resolution or ordinance to the contrary notwithstanding. He shall collect the fees and charges which by law he is allowed to receive, and shall pay over to the City Treasurer each month all sums so received by him; and he shall devote his entire time to the business of his department. His salary, after the year beginning April 1, 1908 shall have expired, shall be fixed in the manner provided in Section 13 of Chapter 1 of the Revised Ordinances and ordinances in amendment thereof and addition thereto.

Sect. 4. The Sealer of Weights and Measures shall annually, during the month of November, make a report of the weights, measures and balances tested, sealed or condemned by him, together with an inventory of the standards and working apparatus in the possession of the city, to the State Commissioner of Weights and Measures, and he shall transmit a copy of said report to the City Council, together with an account of all sums received by him and paid over to the City Treasurer.

Sect. 5. All ordinances and parts of ordinances inconsistent herewith are hereby repealed. [Approved March 5, 1908.]

AN ORDINANCE RELATING TO THE ASSESSMENT OF TAXES IN THE CITY OF LOWELL.

Be it ordained, etc., as follows :

Chapter 3 of the Revised Ordinances of 1894 is hereby amended by striking out all after Section 1 of said Chapter, and substituting in place thereof the following :

Sect. 2. The Board of Assessors shall annually, in the month of January, or as soon as practicable thereafter, organize, by choosing one of their number to act as Chairman; said chairman shall not receive extra compensation, and all members of the Board shall devote their whole time to the service of the city.

Sect. 3. It shall be the duty of the Assessors of Taxes to complete their assessment and place the list of taxes in the hands of the Collector of Taxes on or before the first day of September, annually; and they shall, on or before the first day of September, annually, indicate on said list the residence of the several tax payers for that year.

Sect. 4. When any tax shall be abated in whole or in part by the Assessors of Taxes, they shall make a record thereof in a book to be kept by them for that purpose, which record shall contain the names of all persons whose taxes may be so abated, and the reasons for such abatements; and they shall also annually, in the month of January, make out and transmit to the City Council a full report of the work of their Board, said report to show the total valuation of the city, amount of real estate, amount of personal estate, total corporation valuation in detail, total valuation in bank stock, street watering and moth assessments, number of polls, and such other items as may be of interest to the public. Said figures to be in a column parallel to a column containing the figures of the preceding year.

Sect. 5. The Assessors shall, annually, on the thirty-first day of December, report to the Auditor all abatements of taxes made by them during the year ending on said day, distinguishing the abatements made on the different years' taxes, and whether abated before or after collection.

Sect. 6. The Assessors shall have full power to employ temporary assistant assessors, the number not to exceed twelve (12), for the purpose of obtaining the lists of polls and incidental personal property, the total expenditure not to exceed nine hundred and fifty dollars (\$950.00) in any one year. Permanent clerks, not to exceed two, one to be known as Chief Clerk, may be employed the whole year at such compensation as the Board may determine. The Assessors shall have full power to hire as many temporary clerks as may be necessary to assist them in the performance of their duties, the compensation of said clerks not to exceed two dollars and fifty cents (\$2.50) per day.

Sect. 7. This ordinance shall take effect upon its passage. [Approved April 23, 1908.]

AN ORDINANCE AUTHORIZING THE CITY TREASURER AND CITY AUDITOR TO ADOPT A UNIFORM SYSTEM OF ACCOUNTING AND PRESCRIBE THE SYSTEM OF BOOKKEEPING TO BE USED BY CERTAIN DEPARTMENTS TO CONFORM WITH THE SAME.

Be it ordained by the City Council of the City of Lowell, as follows :

Section 1. That the office of the City Treasurer be solely a receiving and distributing office, the receipts and payments of which shall be reported monthly to the City Auditor and the accounts of which shall be regularly audited by him.

Sect. 2. That the office of the City Auditor be the accounting office in which shall be kept the general books of the city.

Sect. 3. All departments and offices of the City Government shall keep and furnish such records, in book form or otherwise, as shall be prescribed by the City Treasurer and City Auditor.

Sect. 4. The head of each department, and officers receiving money for the city, shall remit to the City Treasurer as often as once a month all moneys that may be in the possession of such departments or officers belonging to the city, except in such cases where the time for payment to the City Treasurer is prescribed by statute.

Sect. 5. All officers and departments required to deposit bills with the City Treasurer for collection, shall file with the City Auditor an itemized account of the same with the statement of the accounts to which the same should be credited when paid.

Sect. 6. All officers and departments paying fees or money received by them to the City Treasurer, shall file with the City Auditor an itemized statement of the sources from which said fees or moneys were received.

Sect. 7. That all bills rendered the city through its various departments shall be presented direct to and examined by the responsible head or heads of each department, and if found correct shall be approved by them over their own signatures; that they shall be secured in wrappers of a uniform width and length, which wrappers shall be properly backed in their own respective departments, after which all the bills as approved and wrapped shall be delivered to the City Auditor's office not later than the sixth day of each month, accompanied by a list of the bills and the total amount of the same; to insure uniformity in the wrappers they shall be furnished by the auditor's office.

Sect. 8. That the bills as received by the City Auditor shall be examined and corrected, and after being approved shall be presented to the Committee on Accounts; after the approval of the Committee on Accounts the bills shall be retained by the City Auditor who shall issue orders to the City Treasurer for the payment of the same to persons to whom the moneys are due.

Sect. 9. That all blanks for payrolls shall be made on single sheets of uniform length and width, and to insure uniformity in all respects the blanks shall be in such form as may be approved by the City Treasurer and City Auditor; that all payrolls shall be approved by the heads of departments and transmitted unfolded by him to the City Auditor; that they shall be examined and approved by the City Auditor and the Committee on Accounts and then transmitted to the City Treasurer with a summary by departments. After payments have been made the payrolls shall be returned to the City Auditor to be filed by him in book form consecutively by audits and alphabetically by departments.

Sect. 10. That in future all amounts due on bills or payrolls shall be turned back to the credit of the department from which the money was drawn at such times as may be agreed upon by the City Treasurer and City Auditor.

Sect. 11. All ordinances or parts of ordinances conflicting with this ordinance are hereby repealed. [Approved December 29, 1908.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED "AN ORDINANCE REGULATING HAWKERS AND PEDDLERS."—[Approved July 29, 1897.]

Be it ordained by the City Council of the City of Lowell, as follows :

Section 1. Section 1 of an ordinance entitled "An Ordinance Regulating Hawkers and Peddlers," approved July 29, 1897, is hereby amended by striking out said section and inserting in place thereof the following :

"Section 1. No person who is not engaged in the pursuit of agriculture shall hawk or peddle fruit or vegetables until he has been duly licensed by and has recorded his name and residence with the Board of Police of the City of Lowell and has been assigned a number by said Board, to be worn in such manner as said Board may prescribe. The fee for such license shall be twenty-five dollars (\$25.00) and the license shall continue in force for one year from the date thereof."

Sect. 2. Section 2 of said ordinance is hereby amended by striking out the words "Section 1 of Chapter 68 of the Public Statutes" in the second and third lines thereof and inserting in place thereof the words: "Chapter 345 of the Acts 1906," so as to read as follows :

Sect. 2. No person hawking, peddling, or selling or exposing for sale any of the articles enumerated in Chapter 345 of the Acts of 1906 shall cry his wares to the disturbance of the peace and comfort of the inhabitants of the city.

Sect. 3. Section 3 of said ordinance is hereby amended by striking out the words "Chapter 68 of the Public Statutes" in the second line thereof and inserting in place thereof the words "Chapter 345 of the Acts of 1906" and by inserting after the word "number" in the last line thereof the words "if any," so as to read as follows :

"Sect. 3. No hawker or peddler shall carry or convey any of the articles enumerated in Chapter 345 of the Acts of 1906 in any manner that will tend to injure the public health or disturb the public peace or comfort, nor otherwise than in vehicles and receptacles which have printed on them in letters and figures at least two inches in height the name of the person selling and the number, if any, given him by the Board of Police." [Approved December 30, 1908.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED, "REQUIRING THE ASSESSORS OF TAXES TO PUBLISH CERTAIN INFORMATION."

Be it ordained by the City Council of the City of Lowell, as follows :

That the Ordinance entitled "Requiring the Assessors of Taxes to publish certain information," be and the same is hereby amended as follows :

By striking out the word and figure "March 1" in the first line and inserting in place thereof the words "in the month of September." By

striking out the word "ten" in the fourth line and inserting in place thereof the word "five," and by striking out the figures "10,000" in the same line and inserting in place thereof the figures "5,000." By striking out the words "properly arranged" in the fifth line. By striking out the words "real and" in the sixth line, and by striking out the words "in the City of Lowell" in the same line and inserting in place thereof the words "arranged in the order of assessment by streets, together with valuation and tax; the names of all real estate taxpayers." By adding after the words "real estate" in the seventh line the words "arranged in numerical order by streets; valuation of buildings." By adding after the word "land" in the seventh line the words "area, valuation;" and by adding after the word "foot" in the seventh line the words "and tax." Also, by striking out the remaining words of the Ordinance, so as to read as follows:

Section 1. Beginning in the month of September, 1907, and every two years thereafter the Assessors of Taxes of the City of Lowell shall cause to be printed at the expense of their department for general distribution, five thousand (5,000) copies of a list which shall contain the following information: names of all personal estate taxpayers, arranged in the order of assessment by streets, together with valuation and tax; the names of all real estate taxpayers; location of real estate, arranged in numerical order by streets; valuation of buildings; valuation of land; area; valuation per foot; and tax. [Approved March 20, 1909.]

AN ORDINANCE TRANSFERRING THE CARE AND CONTROL OF SCHOOL YARDS AND PLAYGROUNDS FROM THE INSPECTOR OF BUILDINGS TO THE BOARD OF PARK COMMISSIONERS.

Be it ordained by the City Council of the City of Lowell, as follows:

Section 1. That all yards and playgrounds belonging to or connected with Lincoln, Greenhalge, Moody, Riverside and Highland Schools be withdrawn from the care and control of the Inspector of Buildings and placed under the care and control of the Board of Park Commissioners.

Sect. 2. The Board of Park Commissioners may select such of the yards and playgrounds referred to in Section 1 as seem to them suitable and may equip them for public playgrounds whenever appropriations for that purpose are voted by the City Council.

Sect. 3. This ordinance to take effect upon its passage. [Approved July 2, 1909.]

AN ORDINANCE AMENDING CHAPTER 21 OF THE REVISED ORDINANCES.

Be it ordained by the City Council of the City of Lowell, as follows:

That Chapter 21 of the Revised Ordinances be amended as follows:
g out all of Section 2 after the word "straw" in the eighteenth

line and inserting in place thereof the following: "or any other article; ten cents for each separate load regardless of size or weight. [Approved July 2, 1909.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED, "RELATING TO THE SEALER OF WEIGHTS AND MEASURES."

Be it ordained by the City Council of the City of Lowell, as follows :

That the Ordinance entitled, "Relating to the Sealer of Weights and Measures " be and the same is hereby amended as follows :

By striking out in Section 2 all after the word "qualified" in the fifth line and inserting in place thereof the following: "A Deputy Sealer of Weights and Measures shall also be appointed by the Mayor and Aldermen annually in the month of March and shall hold his office for the term of one year from the first day of April in the year of his appointment and until his successor is duly appointed and qualified. He shall perform all duties required by the Sealer of Weights and Measures and in the absence of the Sealer of Weights and Measures he shall exercise all the power and authority exercised by the Sealer of Weights and Measures. The Mayor and Aldermen may at any time remove either said Sealer of Weights and Measures or Deputy Sealer of Weights and Measures and appoint another in his place." [Approved July 2, 1909.]

AN ORDINANCE AMENDING AN ORDINANCE ENTITLED, "AN ORDINANCE PROVIDING FOR THE APPOINTMENT OF A SUPERINTENDENT AND ASSISTANT SUPERINTENDENT OF STATE AID."

Be it ordained by the City Council of the City of Lowell, as follows :

Section 1. Section 1 of an ordinance approved September 27, 1898, and entitled, "An Ordinance Providing for the Appointment of a Superintendent and Assistant Superintendent of State Aid," is hereby amended by striking out said section and inserting in place thereof the following :

"Section 1. Prior to the first day of March of each year there shall be appointed by the Mayor, subject to confirmation by concurrent vote of the City Council, a Superintendent of State Aid and an Assistant Superintendent of State Aid for the City of Lowell, who shall hold their offices during the term of one year from said first day of March, and until their successors are appointed and qualified, unless sooner removed in the manner prescribed by law."

Sect. 2. Section 3 of said ordinance is hereby amended by striking out said section and inserting in place thereof the following :

"Sect. 3. Said Assistant Superintendent of State Aid shall be under the direction of the Superintendent of State Aid and shall assist him in his

duties ; and, in the absence or incapacity of the Superintendent of State Aid, or in case a vacancy shall exist in that office, said Assistant Superintendent of State Aid shall perform all the duties of the Superintendent of State Aid." [Approved February 8, 1910.]

AN ORDINANCE PROVIDING FOR SIGNS ON MUNICIPAL AUTOMOBILES.

Be it ordained by the City Council of the City of Lowell, as follows :

Section 1. Every automobile owned by the City of Lowell shall have painted and at all times displayed on each side of its hood the words "City of Lowell," together with the name of the particular department using the said automobile. The letters shall be not less than six (6) inches in height, and shall be of a color in sharp contrast to that of the hood itself.

Sect. 2. This ordinance shall take effect upon its passage. [Approved October 6, 1910.]

AN ORDINANCE OFFICIALLY DESIGNATING THE LOWELL CITY HOSPITAL AND ALMSHOUSE IN CHELMSFORD STREET AS CHELMSFORD STREET HOSPITAL.

Be it ordained by the City Council of the City of Lowell, as follows :

Section 1. That the Lowell City Hospital and Almshouse in Chelmsford Street be designated and hereafter known as the Chelmsford Street Hospital.

Sect. 2 All ordinances officially designating said institution by any other name than that designated by Section 1 are hereby repealed.

Sect. 3. This ordinance shall take effect upon its passage. [Approved October 6, 1910.]

POPULATION, LEGAL VOTERS, ETC., BY WARDS

Wards	Census 1905	Precincts	REGISTERED VOTERS									VOTE FOR	
			Dec. 1908			Nov. 1909			Dec. 1909			MAYOR	
			City Election			State Election			City Election			1909	
			Males	Females	Total	Males	Females	Total	Males	Females	Total	Brown	Meehan
1	9295	1	496	4	500	458	..	....	508	3	511	204	220
		2	654	25	679	601	..	....	621	23	644	327	206
		3	511	36	547	493	..	....	500	31	531	287	138
2	13672		1661	65	1726	1552	..	....	1629	57	1686	818	564
		1	533	13	546	503	..	....	533	6	539	191	286
		2	548	20	568	467	..	....	493	8	501	86	360
3	10083	3	574	11	585	530	..	....	559	9	568	96	411
			1655	44	1699	1500	..	....	1585	23	1608	373	1057
		1	701	6	707	642	..	....	653	6	659	384	159
4	9092	2	670	3	673	654	..	....	669	1	670	438	134
		3	690	11	701	659	..	....	665	11	676	413	135
			2061	20	2081	1955	..	....	1987	18	2005	1235	428
5	9802	1	511	3	514	441	..	....	459	3	462	104	298
		2	508	4	512	479	..	....	504	2	506	91	362
		3	580	8	588	558	..	....	576	7	583	123	386
6	18103		1599	15	1614	1478	..	....	1539	12	1551	318	1046
		1	441	10	451	365	..	....	387	6	393	100	231
		2	448	..	448	422	..	....	447	..	447	75	332
7	8395	3	598	49	647	569	..	....	583	46	629	88	421
			1487	59	1546	1356	..	....	1417	52	1469	263	984
		1	615	28	643	598	..	....	618	27	645	324	197
8	8566	2	681	9	690	664	..	....	697	4	701	231	392
		3	532	3	535	499	..	....	520	3	523	266	188
			1828	40	1868	1761	..	....	1835	34	1869	821	777
9	*9372	1	553	105	658	540	..	....	550	106	656	276	209
		2	547	70	617	527	..	....	545	75	620	182	298
		3	692	57	749	682	..	....	694	77	771	344	272
			1792	232	2024	1749	..	....	1789	258	2047	802	779
		1	590	7	597	585	..	....	597	7	604	344	145
		2	613	2	615	600	..	....	609	2	611	422	106
		3	670	5	675	628	..	....	652	3	655	286	243
			1873	14	1887	1813	..	....	1858	12	1870	1052	494
		1	570	72	642	536	..	....	560	57	617	208	276
		2	624	61	685	606	..	....	631	47	678	306	237
		3	650	81	731	618	..	....	636	75	711	259	298
			1844	214	2058	1760	..	....	1827	179	2006	773	811
96380			15800	703	16503	14924	..	....	15466	645	16111	6455	6940

* 1491 annexed from Tewksbury in 1906, included in Ward 9.

POPULATION OF THE CITY OF LOWELL

Year	Population	Year	Population	Year	Population	Year	Population
1828	3,532	1840	20,981	1865	30,990	1890	77,696
1830	6,477	1844	25,163	1866	36,878	1895	84,359
1832	10,254	1846	29,127	1870	40,928	1900	94,969
1833	12,963	1850	33,383	1875	49,688	1905	94,889
1836	17,633	1855	37,554	1880	59,485	1906	*96,380
1837	18,010	1860	36,827	1885	64,107	.....	.....

*1,491 Annexed from Tewksbury.

CITY OFFICERS

WHEN ELECTED OR APPOINTED

“All officers elected or appointed by the City Council, or either branch thereof, shall hold their offices according to the tenure of the same and until their successors are chosen and qualified, unless otherwise provided for.” City Charter, Sec. 17.

AGENT OF THE BOARD OF HEALTH.

Appointed by the Board of Health under civil service rules.

ASSESSORS OF TAXES—Three.

One chosen in the month of January or February by concurrent vote of the City Council for the term of three years. Ordinances, Chapter 3, Sec. 1.

ASSISTANT ASSESSORS—Twelve.

Appointed by the Assessors. Ordinance approved April 23, 1908.

ASSISTANT ENGINEERS OF THE FIRE DEPARTMENT—Four.

Appointed by the Mayor and Aldermen in March or April, the first assistant for a term of three years, the others for one year, commencing May first. Ordinance approved Nov. 27, 1896.

AUDITOR OF ACCOUNTS.

Chosen by concurrent vote of the City Council in January or February, for three years, commencing the first Monday in April. Chap. 373, Acts of 1905.

ASSISTANT CITY CLERK.

Appointed by the City Clerk, subject to confirmation by the Board of Aldermen. Ordinances, Chap. 8, Sec. 2.

BOARD OF CHARITIES—Five.

One member appointed annually by the Mayor for the term of five years from Jan. 15. Chap. 337, Acts of 1905.

BOARD OF HEALTH—Three.

One member appointed by the Mayor and Aldermen in January for the term of three years, commencing the first Monday in February. Revised Laws, Chap. 75, Sec. 9.

BOARD OF PARK COMMISSIONERS—Five.

One member appointed annually by the Mayor with the approval of the City Council for a term of five years from the first Monday in May. Revised Laws, Chap. 28.

BOARD OF POLICE—Three.

One member appointed by the Mayor every two years for the term of six years, commencing the first Monday in June. Chap. 428, Acts of 1894. Chap. 187, Acts of 1895.

CHAIRMAN OF THE BOARD OF ALDERMEN.

Chosen by the Board of Aldermen on the first Monday in January or as soon thereafter as may be. City Charter, Sec. 12.

CHIEF ENGINEER OF THE FIRE DEPARTMENT.

Chosen by concurrent vote of the City Council in March or April for the term of three years, commencing May first. Chap. 95, Sec. 2, Acts of 1897. Ordinance approved November 27, 1896.

CITY CLERK.

Chosen annually by the City Council in convention, as soon after organization as convenient. City Charter, Sec. 17.

CITY MESSENGER.

Chosen by concurrent vote of the City Council in January for the term of one year, commencing the first Monday in February. Ordinances, Chap. 10, Sec. 1.

CITY PHYSICIAN.

Chosen in October or November by concurrent vote of the City Council for three years, commencing December first. Ordinances, 1905.

CITY SOLICITOR.

Chosen by concurrent vote of the City Council in January or February for the term of one year, commencing March first. Ordinances, Chap. 11, Sec. 1.

CITY TREASURER AND COLLECTOR OF TAXES.

Chosen annually by the City Council in convention as soon after organization as convenient, for the term of one year commencing April first. City Charter, Sec. 17, Ordinances, Chap. 9, Sec. 1.

CIVIL ENGINEER FOR THE CITY.

Chosen by concurrent vote of the City Council in January or February for a term of one year, commencing April first. Ordinances, Chap. 13, Sec. 1.

CIVIL SERVICE EXAMINERS—Three.

Appointed by the State Civil Service Commissioners.

CLERK OF COMMITTEES.

Chosen by concurrent vote of the City Council in January for three years. Ordinances, 1900.

CLERK OF COMMON COUNCIL.

Chosen by Common Council on the first Monday in January, or as soon thereafter as may be. City Charter, Sec. 14.

CLERKS EMPLOYED IN DEPARTMENTS.

Appointed by heads of Departments under civil service rules. Chap. 415, Sec. 5, Acts of 1896.

CLERK OF WATER BOARD.

Chosen by the Water Board in June for the term of one year. Ordinances, Chap. 45, Sec. 2.

COMMISSIONERS OF SINKING FUNDS—Three.

One chosen in December by concurrent vote of the City Council for the term of three years, commencing January first. Revised Laws, Chap. 27, Sec. 14.

COMMITTEE ON ACCOUNTS—Three.

On the first Monday in January, or as soon thereafter as may be, one member chosen by the Board of Aldermen from that board, and two members of the Common Council by said council. Chap. 415, Sec. 10, Acts of 1896.

COMMITTEE ON FINANCE—Five.

On the first Monday in January, or as soon thereafter as may be, one member of the Board of Aldermen, to be elected by that board, and three members of the Common Council, to be elected by said council. The Mayor is a member ex-officio. Ordinances, Chap. 1, Sec. 2.

CONSTABLES—Four or more.

Appointed by the Mayor and Aldermen in January or February for the term of one year. City Charter, Sec. 19, Ord., Chap. 41, Sec. 2.

ELECTION OFFICERS.

Appointed by the Mayor and Aldermen in August, for the term of one year, commencing September fifteenth. Chap. 560, Acts of 1907.

FENCE VIEWERS—Three.

Nominated by the Mayor in January or February and chosen by concurrent vote, commencing in the Board of Aldermen, for the term of one year. Ordinances, Chap. 41, Sec. 1.

FIELD DRIVERS—Four or more.

Nominated by the Mayor in January or February and chosen by concurrent vote of the City Council, commencing in the Board of Aldermen, for the term of one year. Ordinances, Chap. 41, Sec. 1.

FIREMEN.

Appointed by the Chief Engineer on recommendation of the Board of Assistant Engineers, under civil service rules. Chap. 173, Acts of 1898.

FISH WARDEN.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Revised Laws, Chap. 91, Sec. 54.

FOREST WARDEN.

Appointed by the Mayor and Aldermen in March or April, subject to approval of the State Forester. Chap. 475, Acts of 1907.

INSPECTOR OF ANIMALS.

Appointed by the Mayor and Aldermen in March, subject to the approval of the Chief of Cattle Bureau, for the term of one year, commencing April first. Revised Laws, Chap. 90, Sec. 12. Chap. 116, Acts of 1902.

INSPECTOR OF BALE OR BUNDLE HAY.

Appointed by the Board of Aldermen in January or February for the term of one year. Ordinances, Chap. 21, Sec. 1.

INSPECTOR OF BUILDINGS.

Chosen by the City Council in January for one year. Building Ordinances 1906, Sec. 3.

INSPECTORS OF THE HEALTH DEPARTMENT.

Appointed by the Board of Health under civil service rules.

INSPECTORS OF PETROLEUM OILS.

Appointed by the Mayor and Aldermen, upon request of five or more citizens. Revised Laws, Chap. 102, Sec. 109.

INSPECTOR OF MILK.

Appointed by the Board of Health. Chap. 405, Acts of 1909.

INSPECTOR OF PROVISIONS.

Appointed by the Board of Health.

INSPECTORS OF WATER DEPARTMENT.

Appointed by Water Board under civil service rules.

INSPECTOR OF WIRES.

Appointed by the Mayor and Aldermen in January for the term of three years commencing February first. Ordinances, 1898.

LIBRARIAN OF THE CITY LIBRARY.

Chosen by the Trustees of the City Library. Chap. 231, Sec. 5, Acts of 1888.

MAYOR'S CLERK.

Appointed by the Mayor. Chap. 415, Sec. 4, Acts of 1896.

MEASURERS OF GRAIN—Two or more.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Ordinances, Chap. 41, Sec. 2.

MEASURERS OF UPPER LEATHER—Two or more.

Appointed by the Mayor and Aldermen in April, for the term of one year. Ordinances, Chap. 41, Sec. 2.

MEASURERS OF WOOD AND BARK—Two or more.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Ordinances, Chap. 46, Sec. 2.

MEASURERS OF WOOD AND BARK BROUGHT BY WATER OR RAILROAD CARS INTO THE CITY—Two or more.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Ordinances, Chap. 46, Sec. 1.

POLICE OFFICERS.

Appointed by the Board of Police under civil service rules.

POUND KEEPER.

Nominated by the Mayor in January or February and chosen by concurrent vote of the City Council, commencing in the Board of Aldermen, for the term of one year. Ordinances, Chap. 41, Sec. 1.

PRESIDENT OF THE COMMON COUNCIL.

Chosen by the Common Council on the first Monday in January, or as soon thereafter as may be. City Charter, Sec. 14.

REGISTRARS OF VOTERS—Three and the City Clerk.

One member appointed by the Mayor and Aldermen in February or March for the term of three years, commencing April first. The City Clerk is a member ex-officio. Chap. 560, Acts of 1907, Sec. 25. Chap. 440, Acts of 1909, Sec. 6.

SEALER OF WEIGHTS AND MEASURES.

Appointed by the Mayor and Aldermen annually in March. Revised Laws, Chap. 62, Sec. 18. Ordinances 1908. Deputy appointed by the Mayor and Aldermen in March for one year from April first. Ordinance 1909. Civil Service applies, Chap. 382, Acts of 1909.

SMOKE INSPECTOR.

Appointed by the Mayor. Revised Laws, Chap. 103, Sec. 125.

SUPERINTENDENT OF CHARITIES.

Appointed by the Board of Charities. Chap. 337, Acts of 1905.

SUPERINTENDENT OF CITY SCALES.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Ordinances, Chap. 21, Sec. 1.

SUPERINTENDENT OF COMMONS.

Appointed by the Board of Park Commissioners.

SUPERINTENDENT OF SCHOOLS.

Chosen by the School Committee in July or August for the term of one year. Ordinances, Chap. 40, Sec. 1.

SUPERINTENDENT OF STATE AID AND ASSISTANT.

Appointed by the Mayor and City Council for the term of one year, commencing March first. Ordinance approved September 27, 1898. Amended Ord. approved February 8, 1910.

SUPERINTENDENT OF STREETS.

Chosen by concurrent vote of the City Council in January or February for the term of one year. Ordinances, Chap. 39, Sec. 1.

SUPERINTENDENT OF WATER WORKS.

Chosen by the Water Board in March for the term of one year, commencing April first. Ordinances, Chap. 45, Sec. 2.

SURVEYORS OF HIGHWAYS.

Chosen by concurrent vote of the City Council in January or February for the term of one year. City Charter, Sec. 17, Ordinances, Chap. 39, Sec. 1.

SURVEYORS OF LUMBER—Four or more.

Nominated by the Mayor in January or February and chosen by concurrent vote of the City Council, commencing in the Board of Aldermen, for the term of one year. Ordinances, Chap. 39, Sec. 1.

SURVEYORS OF PLASTERING, BRICK OR STONE WORK AND PAINTING—Four or more.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Ordinances, Chap. 41, Sec. 2.

TRUANT COMMISSIONERS.

Appointed by the School Committee. Revised Laws, Chap. 46, Sec. 12.

TRUSTEES OF THE PUBLIC LIBRARY—Five and the Mayor.

One member appointed in December by the Mayor and Aldermen for the term of five years, commencing the second Monday in January. The Mayor is a member ex-officio. Ordinances, Chap. 14, Sec. 2.

TRUSTEES OF PUBLIC BURIAL GROUNDS—Five.

One member appointed by the Mayor annually in April for the term of five years. Chap. 242, Acts of 1907.

WATER BOARD—Four.

One member chosen in January or February by concurrent vote of the City Council for the term of four years, commencing the second Monday in March. Ordinances, Chap. 45, Sec. 1.

WEIGHERS OF COAL—One or more.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Ordinances, Chap. 41, Sec. 2.

WEIGHERS OF HAY AND OTHER ARTICLES—Two or more.

Appointed by the Mayor and Aldermen in January or February for the term of one year. Ordinances, Chap. 21, Sec. 1.

CATALOGUE

OF THE

Government of the City of Lowell

IN

Chronological Order of Service

From Its Institution in 1836, to 1909, Inclusive

1836.**MAYOR:****ELISHA BARTLETT.****ALDERMEN:**

William Austin, resigned Oct. 10.	Benjamin Walker.
Joseph Tapley, elected November.	Oliver M. Whipple.
Seth Ames.	Alexander Wright.
Aaron Mansur.	

SAMUEL A. COBURN, City Clerk.**COMMON COUNCIL:**

John Clark, President.	Stephen Mansur.
Henry J. Baxter.	John Mixer.
Jonathan Bowers.	Thomas Nesmith.
George Brownell.	David Nourse.
James Cook.	Thomas Ordway.
David Dana.	James Russell.
Erastus Douglass.	John A. Savels.
Josiah B. French.	Sidney Spalding.
Cyril French.	Weld Spalding.
Samuel Garland.	Jonathan Tyler.
Horatio W. Hastings.	Tappan Wentworth.
Horace Howard.	William Wyman.

GEORGE WOODWARD, Clerk, died. ALBERT LOCKE, elected.**1837.****MAYOR:****ELISHA BARTLETT, † '36.****ALDERMEN:**

Seth Ames, *'36.	Joseph G. Kittredge.
John Aiken.	Joshua Swan.
Seth Chellis	Alexander Wright, *'36.

SAMUEL A. COBURN, City Clerk.**COMMON COUNCIL:**

WARD 1.	WARD 4.
Joshua Abbott.	William Baker.
James K. Fellows.	Elijha M. Read.
Jesse Phelps.	Charles H. Wilder.
Walter Wright.	William W. Wyman.
WARD 2.	WARD 5.
William Fiske.	George Brownell, '36.
Thomas Nesmith, '36.	Osgood Dane.
Josiah Osgood.	James Russell, '36.
Joseph Tyler.	Tappan Wentworth, '36.
WARD 3.	WARD 6.
Joseph M. Dodge.	Andrew Bird.
Elisha Huntington, President.	Benjamin H. Gage.
William North.	Jona. T. P. Hunt.
Joseph Tapley.	Abram Tilton.

ALBERT LOCKE, Clerk.

The figures without other marks indicate membership of the Common Council those years. † Mayor that year. * Alderman that year. ‡ President of the Common Council that year.

1838**MAYOR:****LUTHER LAWRENCE.****ALDERMEN:**

Benjamin F. French.
Charles L. Tilden.
Oliver M. Whipple, *'36.

George H. Carleton.
George Brownell, '36, '37.
Seth Chellis, *'37.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Jesse Phelps, '37.
Walter Wright, '37.
Eliphalet Brown.
Perez Fuller.

WARD 2.

William Fiske, '37.
Aaron H. Sherman.
William Upham.
Henry J. Baxter, '36.

WARD 3.

Thomas Hopkinson.
Elisha Huntington, †'37, President.
Horace Howard, '36.
John Mixer, '36.

WARD 4.

David Dana, '36.
Perley Hale.
Benjamin Walker, *'36.
William Baker, '37.

WARD 5.

Garret J. Bradt.
Benjamin Wilde.
Erastus Douglass, '36.
Rufus Paul.

WARD 6.

Eli Cooper.
Thomas L. Randlett.
James L. Foot.
Calvin Goodspeed.

ALBERT LOCKE, Clerk.**1839.****MAYOR:****LUTHER LAWRENCE.**—[Died in April.]**ELISHA HUNTINGTON, †'37, †'38.****ALDERMEN:**

Benjamin F. French, *'38.
John O. Green.
Charles L. Tilden, *'38.

George H. Carleton, *'38.
John Clark, †'36.
Oliver M. Whipple, *'36, *'38.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Walter Wright, '37, '38.
Harlin Pillsbury.
Eliphalet Brown, '38.
Forrest Eaton.

WARD 2.

Jonathan Tyler, '36.
John Nesmith.
Henry J. Baxter, '36, '38.
Jefferson Bancroft.

WARD 3.

Thomas Hopkinson, '38, President.
Jacob Robbins.
John G. Locke.

WARD 4.

Benjamin Walker, *'36, '38.
Samuel Horn.
Stephen Carleton.
Stephen Mansur, '36.

WARD 5.

Tappan Wentworth, '36, '37.
Lewis McIntire, died Feb., 1840.
Benjamin Wilde, '38.
Garret J. Bradt, '38.

WARD 6.

Thomas L. Randlett, '38.
Joseph S. Holt.
John L. Fitts.
Daniel Knapp.

ALBERT LOCKE, Clerk.

1840.**MAYOR:****ELISHA HUNTINGTON, † '37, † '38, † '39.****ALDERMEN:**

Jonathan Tyler, '36, '39.
 John R. Adams.
 Joseph Bedlow.

Harlin Pillsbury, '39.
 Seth Ames, *'36, *'37.
 Stephen Mansur, '36, '39.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Forrest Eaton, '39.
 Sylvanus Adams.
 Henry Patch.
 R. M. Hutchinson.

WARD 2.

Jefferson Bancroft, '39.
 John Nesmith, '39.
 Joseph G. Kittredge, *'37.
 Josiah Osgood, '37.

WARD 3.

Pelham W. Warren, President.
 Abner W. Buttrick.
 Asa Hall.
 Samuel Burbank.

WARD 4.

Ferdinand Rodliff.
 Ethan Burnap.
 Edward F. Watson.
 B. Walker, *'36, '38, '39, died Sept.

WARD 5.

Tappan Wentworth, '36, '37, '39.
 Samuel W. Brown.
 John J. Crane.
 George Dane.

WARD 6.

Daniel Knapp, '39.
 George L. Pitts, '39.
 Joseph Battles.
 Joshua Converse.

ALBERT LOCKE, Clerk, died October. JOHN G. LOCKE, elected October.**1841.****MAYOR:****ELISHA HUNTINGTON, † '37, † '38, † '39, † '40.****ALDERMEN:**

Seth Chellis, *'37, '38.
 Jefferson Bancroft, '39, '40.
 Cyril French, '36.

George H. Carleton, *'38, *'39.
 John R. Adams, *'40.
 John Aiken, *'37.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Henry Patch, '40.
 George Bragdon.
 John W. Holland.
 Arnold Welch.

WARD 2.

William Fiske, '37, '38.
 Erasmus D. Leavitt.
 Jonathan White.
 Nathaniel Wilson.

WARD 3.

Samuel Burbank, '40.
 Nathaniel Critchett.
 Royal Southwick.
 Edward Winslow.

WARD 4.

Ethan Burnap, '40.
 William Livingston.
 John Morrison.
 Edward F. Watson, '40.

WARD 5.

Tappan Wentworth, '36, '37, '39, '40, Pres.
 Samuel W. Brown, '40.
 John J. Crane, '40.
 Phineas Whiting.

WARD 6.

Francis H. Bowers.
 Isaac H. Cooper.
 William Potter.
 John Smith.

JOHN G. LOCKE, Clerk.

MUNICIPAL REGISTER

1842.**MAYOR:****NATHANIEL WRIGHT.****ALDERMEN:**

Nathaniel Thurston.	William Livingston, '41.
Jefferson Bancroft, '39, '40, '41.	Ithamar A. Beard.
Cyril French, '36, *'41.	John W. Graves.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Jeremiah P. Jewett.
John Hadley.
James Townsend.
Edward J. Payne.

WARD 2.

John Nesmith, '39, '40.
Erasmus D. Leavit, '41.
Joseph W. Mansur, President.
James Hopkins.

WARD 3.

Nathaniel Critchett, '41.
Ira Spalding.
John Mead.
Asa W. Willoughby.

WARD 4.

John Morrison, '41.
William Carlton.
Oliver March.
Josiah B. French, '36.

WARD 5.

James Patterson.
Isaac Appleton.
Josiah Seavey.
Roswell Douglass.

WARD 6.

James Russell, '36, '37.
Jonathan Kendall.
Varnum A. Shed.
Isaac N. Fitts.

JOHN G. LOCKE, Clerk.**1843.****MAYOR:****NATHANIEL WRIGHT, † '42.****ALDERMEN:**

Harlin Pillsbury, '39, *'40, res'd June.	S. Spalding, '36, res'd in June.
Henry C. Johnson.	Joseph Griffin.
Cyril French, '36 *'41, *'42.	Charles L. Tilden, *'38, '39.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Daniel Bixby.
Edward J. Payne, '42.
Hugh Commiskey.
Walter Wright, '37, '38, '39.

WARD 2.

Henry J. Baxter, '36, '38, '39.
John P. Simonds.
Pliny Lawton.
Ben Osgood.

WARD 3.

John Mead, '42.
Willard Brown.
Ira Spalding, '42.
Benjamin J. Gerrish.

WARD 4.

Otis Allen.
Alfred Gilman.
Oliver March, '42, President.
William Carlton, '42.

WARD 5.

James Patterson, '42.
David Bradt.
John L. Tripp.
Benjamin F. Holden.

WARD 6.

John B. McAlvin.
Cyrus Battles.
Sewall G. Mack.
Charles F. Mitchell.

JOHN G. LOCKE, Clerk.

1844.**MAYOR:****ELISHA HUNTINGTON**, † '37, † '38, † '39, † '40, † '41.**ALDERMEN:**

Henry Smith.
 Selwin Bancroft,
 O. M. Whipple, *'36, *'38, *'39.

Edward F. Watson, '40, '41.
 Joseph Griffin, *'43.
 John Wright.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Forrest Eaton, '39, '40.
 Gilman N. Nichols.
 Hugh Cummiskey, '43.
 David Healey.

WARD 2.

John P. Simonds, '43.
 Ben Osgood, '43.
 Amos Merriam.
 John Clark, † '36, *'39, President.

WARD 3.

Charles B. Coburn.
 George Choate.
 Isaac Scripture.
 William C. Gray.

WARD 4.

Asa Wetherbee.
 Abner W. Buttrick, '40.
 Horatio G. F. Corliss.
 Charles H. Wilder, '37.

WARD 5.

John L. Tripp, '43.
 David Bradt, '43.
 John Wright.
 Nathaniel Wright, Jr.

WARD 6.

Sewall G. Mack, '43.
 James Russell, '36, '37, '42.
 Jonathan Kendall, '42.
 Gilman Gale.

JOHN G. LOCKE, Clerk.**1845.****MAYOR:****ELISHA HUNTINGTON**, † '37, † '38, † '39, † '40, † '41, † '44.**ALDERMEN:**

Henry Smith, *'44.
 Selwin Bancroft, *'44.
 O. M. Whipple, *'36, *'38, *'39, *'44.

Edward F. Watson, '40, '41, '44.
 John C. Dalton.
 Daniel Knapp, '39.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Gilman N. Nichols, '39.
 Danforth P. Brigham.
 Jonathan Adams.
 Willard C. Welch.

WARD 2.

John P. Simonds, '43, '44.
 Daniel Balch.
 William Brown.
 Daniel S. Richardson, President.

WARD 3.

Isaac Scripture, '44.
 William C. Gray, '44.
 George Choate, '44.
 Hapgood Wright.

WARD 4.

Abner W. Buttrick, '40 '44.
 Asa Wetherbee, '44.
 Charles H. Wilder, '37, '44.
 Josiah Sawtell.

WARD 5.

Nathaniel Wright, Jr., '44.
 Amos Hyde.
 Edward Sherman.
 James Fenno.

WARD 6.

Gilman Gale, '44.
 John B. McAlvin, '43.
 Samuel Fay, Jr.
 Lorenzo P. Wright.

JOHN G. LOCKE, Clerk.

1846.**MAYOR:****JEFFERSON BANCROFT, '39, '40, *'41, *'42.****ALDERMEN:**

Henry Smith, *'44, *'45.
 Selwin Bancroft, *'44, *'45.
 William C. Gray, '44, '45.
 Joseph Butterfield.

John C. Dalton, '45.
 D. Knapp, '39, *'45, resigned in July
 Isaac Corper, '41, elected in August.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Gilman N. Nichols, '39, '45.
 Danforth P. Brigham, '45.
 Willard C. Welch, '45.
 Thomas S. Hutchinson.

WARD 2.

Daniel Balch, '45.
 William Brown, '45.
 Daniel S. Richardson, †'45, President.
 Zadock Rogers.

WARD 3.

Hapgood Wright, '45.
 Isaac Farrington.
 Joel Powers.
 Franklin Mead.

WARD 4.

Josiah Sawtell, '45.
 Solon Stevens.
 David J. Moody.
 William Fletcher.

WARD 5.

Amos Hyde, '45.
 Horatio G. F. Corliss, '44.
 Jonathan Bowers, '36.
 Charles M. Short.

WARD 6.

Lorenzo P. Wright, '45.
 John L. Fitts, '39, '40.
 Lewis Packard.
 Columbus J. Hubbard.

JOHN G. LOCKE, Clerk.**1847.****MAYOR:****JEFFERSON BANCROFT, '39, '40, *'41, *'42, †'46.****ALDERMEN:**

George Dragdon.
 Joseph Butterfield, *'46.
 Linus Child.
 James Fenno, '45.

Elisha Huntington, †'37, †'38, †'39, †'40,
 †'41, †'44, †'45.
 Sewall G. Mack, '43, '44.
 Stephen Mansur, '36, '39, *'40.
 Josiah Sawtell, '45, '46.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

William Conihe.
 James C. Crombie.
 David S. Bachelder,
 Jesse Huse.

WARD 2.

Samuel W. Brown, '40, '41.
 Hannibal Powers.
 William Newman.
 Otis L. Allen.

WARD 3.

Joel Powers, '46.
 Franklin Mead, '46.
 Isaac Farrington, '46.
 Samuel G. Davis.

WARD 4.

Joel Adams, President.
 Horatio Fletcher.
 Solon Stevens, '46.
 Stephen A. Coburn.

WARD 5.

Ignatius Tyler.
 Edward C. Johnson.
 Elihu Gates.
 Charles M. Short, '46.

WARD 6.

Thomas Wentworth.
 Isaac N. Parker.
 John R. Southwick.
 Isaiah Morse.

JOHN G. LOCKE, Clerk.

1848.**MAYOR:****JEFFERSON BANCROFT,** '39, '40, *'41, *'42, †'46, †'47.**ALDERMEN:**

David Dana, '36, '38.

Erastus Douglass, '36, '38.

Jacob Graves, resigned in June.

William Newman, '47.

Gilman N. Nichols, '39, '45, '46.

Daniel S. Richardson, †'45, †'46.

Josiah Sawtell, '45, '46, *'47.

O. M. Whipple, *'36, *'38, *'39, *'45.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

William Conibe, '47.

James C. Crombie, '47.

Jesse Huse, '47.

Gerry Wilson.

WARD 2.

Otis L. Allen, '47.

William H. Flagg.

John Nesmith, '39, '40, '42.

Hannibal Powers, '47.

WARD 3.

Alfred Gilman, '43.

Thomas Hopkinson, '38, '39, President.

Ransom Reed.

Nathaniel Critchett, '41, '42.

WARD 4.

John Avery.

Otis Allen, '43.

Abiel Rolfe.

Horace Howard, '36, '38.

WARD 5.

Ignatius Tyler, '47.

Elihu Gates, '47.

Edward C. Johnson, '47.

Charles M. Short, '46, '47.

WARD 6.

Thomas Wentworth, '47.

Isaac N. Parker, '47.

Jeremiah M. Currier.

Horace Parmenter.

JOHN G. LOCKE, Clerk.**1849.****MAYOR:****JOSIAH B. FRENCH,** '36, '42.**ALDERMEN:**

James B. Francis.

Cyril French, '36, *'41, *'42, *'43.

James H. B. Ayer.

Daniel D. Crombie.

Daniel Carter.

George Brownell, '36, '37, *'38.

Artemas L. Brooks.

Joseph Bedlow, *'40.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Jesse Huse, '47, '48, resigned in February.

William A. Richardson, elected in March.

Gerry Wilson, '48.

John W. Smith.

Alfred S. Saunders.

WARD 2.

William H. Flagg, '48.

Ivers Taylor.

Isaac S. Morse, resigned.

Ambrose Lawrence.

WARD 3.

Alfred Gilman, '43, '48.

Elisha Davis.

James Dinsmoor.

Andrew C. Wheelock.

WARD 4.

Nathaniel B. Favor.

Caleb Crosby.

Ezekiel Wright.

Waldo A. Fisher.

WARD 5.

Maynard Bragg.

Joshua Decatur.

Abram T. Melvin.

W. W. Morse.

WARD 6.

William Lamson, Jr.

Jeremiah M. Currier, '48.

George S. Wright.

John Aiken, *'37, *'41, President.

GEORGE A. BUTTERFELD, Clerk.

1850.**MAYOR:****JOSIAH B. FRENCH, '36, '42, †'49.****ALDERMEN:**

James H. B. Ayer, *'49.
 Joseph Bedlow, *'40, *'49.
 Daniel D. Crombie, *'49.
 James B. Francis, *'49.

Philip Hardy.
 John Mixer, '36, '38.
 Josiah G. Peabody.
 James Townsend, '42.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

John W. Smith, '49.
 Daniel R. Kimball.
 James Watson.
 Jonathan Smothers.

WARD 2.

Ivers Taylor, '49, President.
 George Gardner.
 Samuel Lawrence, 2d.
 Samuel J. Varney.

WARD 3.

Jonathan Page.
 John Tripp.
 Fordyce Coburn.
 Joshua Merrill.

WARD 4.

Abner W. Buttrick, '40, '44, '45.
 Caleb Crosby, '49.
 Benjamin Goddard.
 Nathaniel B. FAVOR, '49.

WARD 5.

George P. Elliot.
 William Fiske, '37, '38, '41.
 George W. Worthen.
 Maynard Bragg, '49.

WARD 6.

Albert Mallard.
 Stephen P. Sargent.
 George S. Wright, '49.
 Wm. Lampson, Jr., '49, resigned in May

GEO. A. BUTTERFIELD, Clerk, res'd May. WM. LAMSON, JR., elected May.**1851.****MAYOR:****JAMES H. B. AYER, *'49, *'50.****ALDERMEN:**

William Fiske, '37, '38, '41, '50.
 Ambrose Lawrence, '49.
 James Townsend, '42, *'50.
 Philip Hardy, *'50.

William North, '37.
 Abiel Rolfe, '48.
 Lucius A. Cutler.
 Joshua Converse, 40.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

James Watson, '50.
 Jonathan Smothers, '50.
 Charles B. Coburn, '44.
 Stephen Moar.

WARD 2.

Linus Child, *'47.
 George Gardner, '50, President.
 Samuel J. Varney, '50.
 Zachariah B. Caverly.

WARD 3.

Fordyce Coburn, '50.
 William Twichell.
 Darius C. Brown.
 Benjamin C. Sargeant.

WARD 4.

Benjamin Goddard, '50.
 Richard Dennis.
 Holland Streeter.
 Solomon D. Emerson.

WARD 5.

George P. Elliot, '50.
 Edward Fifield.
 John N. Ford.
 Theodore H. Sweetser.

WARD 6.

George W. Worthen, '50.
 George W. Jones, died in September.
 Stephen P. Sargent, '50.
 Albert Mallard, '50.

WILLIAM LAMSON, JR., Clerk,

1852.**MAYOR:****ELISHA HUNTINGTON**, †'37, †'38, †'39, †'40, †'41, †'44, †'45, *'47.**ALDERMEN:**

Joseph Bedlow, *'40, *'49, *'50.
 Joseph M. Bullens.
 Samuel Burbank, '40, '41.
 Joseph B. V. Coburn.

Wm. Fiske, '37, '38, '41, '50, *'51.
 William North, '37, *'51.
 Alpha Stevens.
 Samuel J. Varney, '50, '51.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Rufus Rogers.
 John C. Smith.
 Jeremiah Clark.
 Paul Hill.

WARD 2.

Paul Perkins.
 Milton Bonney.
 William Hovey.
 Zachariah B. Caverly, '51.

WARD 3.

Darius C. Brown, '51.
 William Twitchell, '51.
 Benjamin C. Sargeant, '51, President.
 Michael B. Caswell.

WARD 4.

Holland Streeter, '51.
 Elbridge Livingston.
 Abram French.
 Willard Minot.

WARD 5.

Edward Fifield, '51.
 Phineas Whiting, '41.
 George W. Patterson.
 Jonathan Kendall, '42, '44.

WARD 6.

Leonard W. Jaquith.
 Seth Pooler.
 Caleb G. Weaver.
 William C. Parker.

WILLIAM LAMSON, JR., Clerk.**1853.****MAYOR:****SEWALL G. MACK**, '43, '44, *'47.**ALDERMEN:**

Elisha Huntington, †'37, †'38, †'39, †'40,
 †'41, †'44, †'45, *'47, †'52.
 Samuel K. Hutchinson.
 Stephen Mansur, '36, '39, *'40, *'47.
 Joseph B. V. Coburn, *'52.

Ira Spalding, '42, '43.
 Joseph M. Bullens, *'52.
 Alpha Stevens, *'52.
 Joseph White.

THOMAS ORDWAY, City Clerk.**COMMON COUNCIL:****WARD 1.**

Rufus Rogers, '52.
 John C. Smith, '52.
 Marcus A. Thomas.
 James Cook, '36.

WARD 2.

Paul Perkins, '52.
 Milton Bonney, '52.
 George G. Bumpus.
 George W. Stanley.

WARD 3.

Michael B. Caswell, '52.
 Calvin Philbrick.
 Leonard Brown.
 Henry H. Wilder.

WARD 4.

Abram French, '52.
 Henry C. Howe.
 Joseph S. Grush.
 Samuel K. Pickering.

WARD 5.

George W. Patterson, '52.
 William A. Richardson, '49, President.
 Patrick Conlan.
 Jonathan Bowers.

WARD 6.

Caleb G. Weaver, '52.
 William C. Parker, '52.
 George F. Woods.
 C. F. Blanchard.

WILLIAM LAMSON, JR., Clerk.

1854.**MAYOR:****SEWALL G. MACK, '43, '44, *'47, †'53.****ALDERMEN:**

Elisha Huntington, †'37, †'38, †'39, †'40, Joseph White, *'53.
 †'41, †'44, †'45, *'47, †'52, *'53. Horatio Fletcher, 47.
 J. B. V. Coburn, *'52, *'53, res'd in Jan. C. F. Blanchard, '53.
 Samuel K. Hutchinson, *'53. Charles Sperry.
 Ira Spalding, '42, '43, *'53.

WILLIAM LAMSON, JR. City Clerk.**COMMON COUNCIL:****WARD 1.**

John C. Smith, '52, '53.
 Paul Hill, '52.
 Marcus A. Thomas, '53.
 Thomas Lennon.

WARD 2.

George W. Stanley, '53.
 William H. Gage.
 Amos A. Taylor.
 William H. Bradley.

WARD 3.

Calvin Philbrick, '53.
 Leonard Brown, '53, declined.
 Darius C. Brown, '51, '52, elected.
 Henry H. Wilder, '53.
 Peter O. C. Frawley.

WARD 4.

Henry C. Howe, '53.
 Joseph S. Grush, '53.
 Samuel K. Pickering, '53.
 Hubbard Wilson.

WARD 5.

Wm. A. Richardson, '49, †'53, President.
 Jonathan Bowers, '53.
 Patrick Conlan, '53.
 John C. Woodward.

WARD 6.

George F. Woods, '53.
 Charles S. Eastman.
 Levi H. Straw.
 William P. Webster.

LEONARD BROWN, Clerk.**1855.****MAYOR:****AMBROSE LAWRENCE, '49, '51.****ALDERMEN:**

Wm. Fiske, '37, '38, '41, '50, *'51, *'52. Andrew T. Nute.
 Artemas L. Brooks, *'49. Abner Frost.
 Daniel Woodward. William S. Johnson.
 Lorenzo G. Howe. Shadrach R. Brackett.

WILLIAM LAMSON, JR., City Clerk.**COMMON COUNCIL:****WARD 1.**

Maynard Bragg, '49, '50.
 Aaron B. Young.
 Augustus B. Roby.
 George L. Harris.

WARD 2.

William G. Morse.
 George K. Paul.
 Mark H. Cook.
 Joseph A. Patten.

WARD 3.

Alfred Gilman, '43, '48, '49, President.
 Daniel Hurd.
 Theodore Warren.
 Stephen K. Fielding.

WARD 4.

Joshua W. Daniels.
 John Bennett.
 Alanson Folsom.
 Francis H. Nourse.

WARD 5.

John C. Woodward, '54.
 Stephen Bartlett.
 Jonathan Johnson.
 Oliver P. Rand.

WARD 6.

Levi H. Straw, '54.
 William T. Whitten.
 Lucien P. Stacy.
 James M. Moore.

LEONARD BROWN, Clerk.

1856.**MAYOR:**

ELISHA HUNTINGTON, † '37, † '38, † '39, † '40, † '41, † '44, † '45, * '47, † '52, * '53, * '54.

ALDERMEN:

Edward Tuck.
Samuel Burbank, '40, '41, * '52.
Charles B. Coburn, '44.
William P. Webster, '54.
Hapgood, Wright, '45, '46.

Charles H. Wilder, '37, '44, '45.
O. J. Conant, resigned in March.
James H. Rand.
Jonathan Johnson, elected in June.

WILLIAM LAMSON, JR., City Clerk.

COMMON COUNCIL:**WARD 1.**

Enos O. Kingsley.
Abiel Pevey.
David M. Collins.
Marshall E. Thompson.

WARD 2.

Isaac Hinckley.
Seth Gage.
Peter Flanders, Jr.
Leonard F. Jewell.

WARD 3.

David Rogers.
Benj. C. Sargeant, '51, † '52, President.
Henry H. Carroll.
Peter Powers.

WARD 4.

Francis H. Nourse, '55.
Alden B. Buttrick.
Holland Streeter, '51, '52.
James Sands.

WARD 5.

Frederick Holton.
Isaac Place.
Albert Wheeler.
Abiel Rolfe, '48, * '51.

WARD 6.

Eliphalet Hills.
Jonathan P. Folsom.
James K. Fellows, '37.
John K. Chase.

JAMES J. MAGUIRE, Clerk.

1857.**MAYOR:**

STEPHEN MANSUR, '36, '39, * '40, * '47, * '53.

ALDERMEN:

Andrew T. Nute, * '55.
John C. Woodward, '54, '55.
Jonathan Smothers, '50, '51.
Samuel W. Stickney.

John B. Tuttle.
Francis H. Nourse, '55, '56.
Jonathan Johnson, '55, * '56.
John Nesmith, '39, '40, '42, '48.

WILLIAM LAMSON, JR., City Clerk.

COMMON COUNCIL:**WARD 1.**

Abiel Pevey.
Stephen T. Stanley.
Charles A. Welch.
George F. Scribner.

WARD 2.

William G. Morse, '55.
William D. Vinall.
Temple Tebbetts.
James M. Howe.

WARD 3.

Benjamin C. Sargeant, '51, † '52, † '56.
David Rogers, '56.
Henry H. Carroll, '56.
Nathan Allen.

WARD 4.

Caleb Crosby, '49, '50.
John F. Howe.
John C. Jepson.
Alanson Nichols.

WARD 5.

Frederick Holton, '56, President.
William H. Wiggin.
William Goodale.
Charles Hubbard.

WARD 6.

Erastus Boyden.
Jonathan Kimball.
Robert J. Garrett.
William Nichols.

HENRY A. LORD, Clerk.

1858.**MAYOR:**

ELISHA HUNTINGTON, † '37, † '38, † '39, † '40, † '41, † '44, † '45, * '47, † '52, * '53, * '54, † '56.

ALDERMEN:

Sewall G. Mack, '43, '44, * '47, † '53, † '54. Joseph M. Dodge, '37.
 Samuel W. Stickney, * '57. Harvey Silver.
 Abiel Pevey, '56, '57. Albert Wheeler, '56.
 Jeremiah P. Jewett, 42. Edwin A. Alger.

JOHN H. McALVIN, City Clerk.

COMMON COUNCIL:**WARD 1.**

Charles Wilkins.
 John M. Maynard.
 John E. Webb.
 William Barnard.

WARD 2.

Edward Tuck, * '56.
 William P. Webster, '54, * '56.
 Andrew Blood.
 William F. Salmon.

WARD 3.

Benjamin C. Sargeant, '51, † '52, † '56,
 '57, President.
 Hanover Dickey.
 Joseph A. Brabrook.
 Benjamin S. Butterworth.

WARD 4.

Enoch P. Young.
 Zephaniah Goward.
 Jesse Blake.
 John F. Howe, '57.

WARD 5.

Willard Dudley.
 Samuel T. Manahan.
 Isaac Page.
 John Avery, 2d.

WARD 6.

William Nichols, '57.
 Alpha B. Farr, resigned in January.
 Leonard Brown, '53, '54, elected in Feb.
 Erastus Boyden, '57.
 James H. Rand, * '56, resigned in May.
 Eben'r Burgess, elected in June.

GEORGE GARDNER, Clerk.

1859.**MAYOR:**

JAMES COOK, '36, '53.

ALDERMEN:

Lorenzo G. Howe, * '55.
 Samuel J. Varney, '50, '51, * '52.
 Paul Hill, '52, '54.
 Ambrose Lawrence, '49, '51, † '55, re-
 signed in April.
 Darius C. Brown, '51, '52.

John F. Howe, '57, '58.
 Joshua Converse, '40, * '51, res'd in April.
 J. P. Folsom, '56, resigned in April.
 Edward Tuck, * '56, '58, elected in May.
 Samuel T. Manahan, '58, elected in May.
 Jonathan Ladd, elected in May.

JOHN H. McALVIN, City Clerk.

COMMON COUNCIL:**WARD 1.**

John E. Webb, '58.
 Charles Wilkins, '58.
 William Barnard, '58.
 William D. Blanchard.

WARD 2.

W. P. Webster, '54, * '56, '58, President.
 William F. Salmon, '58.
 James M. Howe, '57.
 David Nichols.

WARD 3.

George Hobson.
 Asahel D. Puffer.
 John Willoughby.
 Benjamin S. Butterworth, '58.

WARD 4.

Caleb Crosby, '49, '50, '57.
 Jesse Blake, '58.
 George W. Partridge.
 George W. Young.

WARD 5.

Horatio G. F. Corliss, '44, '46.
 Luther B. Morse.
 Josiah G. Peabody, * '50.
 William Goodale, '57.

WARD 6.

Charles A. Stott.
 Levi Sprague.
 Ebenezer Burgess, '58.
 Leonard Brown, '53, '54, '58.

GEORGE GARDNER, Clerk.

1860.**MAYOR:****BENJAMIN C. SARGEANT, '51, † '52, † '56, '57, † '58.****ALDERMEN:**

Edward F. Watson, '40, '41, *'44, *'45.

Lorenzo G. Howe, *'55, *'59.

James Watson, '50, '51.

William G. Morse, '55, '57.

Henry H. Wilder, '53, '54.

Abner Frost, *'55.

Samuel T. Manahan, '58, *'59.

William S. Gardner.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Benjamin S. Ireson.

Enoch Quimby.

John P. Slocum.

Amos H. Foster.

WARD 2.

Henry P. Clough.

Alfred S. Saunders, '49.

Wm. F. Salmon, '58, '59, President.

Joseph L. Sargent.

WARD 3.

George Hobson, '59.

Josiah B. Fielding.

Henry P. Perkins.

Hocum Hosford.

WARD 4.

George W. Partridge, '59.

George W. Young, '59.

Morrill M. Bohonan.

Caleb Crosby, '49, '50, '57, '59.

WARD 5.

Josiah G. Peabody, *'50, '59.

Sullivan L. Ward.

George F. Morey.

William H. Lamson.

WARD 6.

William Nichols, '57, '58.

Samuel T. Lancaster.

Charles A. Stott, '59.

Foster Nowell.

GEORGE GARDNER, Clerk.**1861.****MAYOR:****BENJAMIN C. SARGEANT, '51, † '52, † '56, '57, † '58, † '60.****ALDERMEN:**

Samuel T. Manahan, '58, *'59, *'60.

Jonathan P. Folsom, '56, *'59.

James Watson, '50, '51, *'60.

William G. Morse, '55, '57, *'60.

Hocum Hosford, '60.

Aldis L. Waite.

David Whitney, declined acceptance.

Sager Ashworth, elected in May.

William S. Gardner, *'60.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Frank E. Jewett.

M. Gilbert Perkins.

Jacob Baron.

William D. Blanchard, '59.

WARD 2.

Alfred S. Saunders, '49, '60.

Joseph L. Sargent, '60.

Henry P. Clough, '60.

Henry S. Orange.

WARD 3.

William L. North, President.

George W. Norris.

Henry P. Perkins, '60.

James G. Morrison.

WARD 4.

Joseph Cater.

Joseph B. Keyes.

Morrill M. Bohonan, '60.

Abel M. Ayer.

WARD 5.

Sullivan L. Ward, '60.

Samuel Beck.

William H. Parker.

George F. Morey, '60.

WARD 6.

Samuel T. Lancaster, '60.

Foster, Nowell, '60.

Elon A. Sanborn.

George E. Dana.

GEORGE GARDNER, Clerk.

1862.**MAYOR:****HOCUM HOSFORD, '60, *'61.****ALDERMEN:**

Mertoun C. Bryant.
 Edwin A. Alger, *'58.
 James B. Francis, *'49, *'50.
 William A. Burke.

Isaac F. Scripture.
 Aldis L. Waite, *'61.
 Albert Wheeler, '56, *'58.
 Jona. P. Folson, '56, *'59, *'61.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1**

Amos D. Wright.
 Frank E. Jewett, '61.
 Horatio G. Burgess.
 Charles F. Hard.

WARD 2.

Benedict O. Carpenter.
 William T. McNeill.
 Lorenzo G. Howe, *'55, *'58, *'60.
 Henry S. Orange, '61.

WARD 3.

George W. Norris, '61.
 Edmund D. Fletcher.
 Everett W. French.
 John Quinn.

WARD 4.

Joseph B. Keyes, 61.
 George Runels.
 John Pettingell.
 Hubbard Willson, '54.

WARD 5.

Rollin C. Downs.
 Albert Mallard, '50, '51.
 Edward Fifield, '51, '52.
 Cleveland J. Cheney.

WARD 6.

George F. Richardson, President.
 Albion J. Dudley.
 Elon A. Sanborn, '61.
 Frederick Frye.

GEORGE GARDNER, Clerk.**1863.****MAYOR:****HOCUM HOSFORD, '60, *'61, † '62.****ALDERMEN:**

James B. Francis, *'49, *'50, *'62.
 Edwin A. Alger, *'58, *'62.
 Abiel Pevey, '56, '57, *'58.
 William A. Burke, *'62.

Isaac F. Scripture, *'62.
 Otis Allen, '43, '48.
 Albert Wheeler, '56, *'58, *'62.
 William Nichols, '57, '58, '60.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Charles F. Hard, '62.
 Amos D. Wright, '62.
 John Cosgrove.
 William A. Wright.

WARD 2.

George F. Sawtell.
 Henry S. Orange, '61, '62.
 Hugh McEvoy.
 Nathaniel Stearns.

WARD 3.

Everett W. French, '62.
 Fordyce Coburn, '50, '51.
 Edmund D. Fletcher, '62.
 John Quinn, 62.

WARD 4.

Atwell F. Wright.
 Josiah Gates.
 William Stafford.
 John McCann.

WARD 5.

James C. Ayer.
 Charles W. Saunders.
 Cyrus H. Latham.
 John E. Downs.

WARD 6.

George F. Richardson, † '62, President.
 Albion J. Dudley, '62.
 Benedict O. Carpenter, '62.
 Frederick Frye, '62.

GEORGE GARDNER, Clerk.

1864.**MAYOR:****HOCUM HOSFORD**, '60, *'61, †'62, †'63.**ALDERMEN:**

William S. Southworth. George W. Norris, '61, '62.
 James B. Francis, *'49, *'50, *'62, *'63. George Runels, '62.
 Dana B. Gove. Cyrus H. Latham, '63.
 William T. McNeill, '62. George F. Richardson, †'62, †'63.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Alden B. Watson.
 Lewis L. Perrin.
 Frederick S. Tukey.
 John Cosgrove, '63.

WARD 2.

George Ripley, President.
 Andrew F. Jewett.
 Artemas S. Young.
 Hoyt W. Hilton.

WARD 3.

Samuel N. Wood.
 Charles W. Dodge.
 Joseph S. Pollard.
 James G. Morrison, '61.

WARD 4.

Atwell F. Wright, '63.
 Daniel Churchill.
 William W. Sherman.
 Francis Jewett.

WARD 5.

Johu E. Downs, '63.
 Thomas G. Gerrish, resigned June 14.
 Charles Hubbard, '57.
 Cleveland J. Cheney, '62.

WARD 6.

Levi Sprague, '59.
 Tobias L. P. Lamson.
 Addison Putnam.
 Albion J. Dudley, '62, '63.

GEORGE GARDNER, Clerk.**1865.****MAYOR:****JOSIAH G. PEABODY**, *'50, '59, '60.**ALDERMEN:**

Ew'd F. Watson, '40, '41, *'44, *'45, *'60. Henry H. Wilder, '53, '54, *'60.
 George W. Norris, '61, '62, *'64. Josiah Gates, '63.
 Dana B. Gove, *'64. Cyrus H. Lathan, '63, *'64.
 William T. McNeill, '62, *'64. William Brown, '45, '46.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Alden B. Watson, '64.
 Lewis L. Perrin, '64.
 George N. Osgood.
 John R. Southwick, '47.

WARD 2.

George Ripley, †'64, President.
 Andrew F. Jewett, '64.
 Julian V. Keyes.
 Chester W. Rugg.

WARD 3.

Joseph S. Pollard, '64.
 Charles W. Dodge, '64.
 Edward C. Rice.
 Frederick T. North.

WARD 4.

Francis Jewett, '64.
 Benjamin Walker.
 Benjamin L. Googins.
 John Pearson.

WARD 5.

Charles Hubbard, '57, '64.
 James Kent.
 Simeon D. Osterhoudt.
 James Foster.

WARD 6.

Tobias L. P. Lamson, '64.
 Luke C. Dodge.
 Gustavus A. Gerry.
 James M. Moore, '55.

GEORGE GARDNER, Clerk.

1866.**MAYOR:****JOSIAH G. PEABODY**, *'50, '59, '60, † '65.**ALDERMEN:**

Samuel A. Brown.

Albert B. Plimpton.

John R. Southwick, '47, '65.

Joseph L. Sargent, '60, '61.

Charles W. Dodge, '64, '65.

Josiah Gates, '63, *'65.

Henry M. Hooke.

Albion J. Dudley, '62, '63, '64.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

William A. Hodge.

William A. Wright, '63.

Jacob Baron, '61.

Rollin C. Downs, '62.

WARD 2.

Andrew F. Jewett, '64, '65.

George H. Whitmore.

Julian V. Keyes, '65.

Chester W. Rugg, '65.

WARD 3.

Edward C. Rice, '65.

Frederick T. North, '65.

James N. Pinkham.

Oliver W. Smith.

WARD 4.

Benjamin L. Googins, '65.

Alfred Scott.

Thomas F. Burgess.

Benjamin Walker, '65.

WARD 5.

Robert H. Butcher.

John T. Lee.

George L. Huntoon.

Jonathan Johnson, '55, *'56, *'57.

WARD 6.

Gustavus A. Gerry, '65, President.

Luke C. Dodge, '65.

Charles A. Kimball.

Alfred H. Chase.

GEORGE GARDNER, Clerk.**1867.****MAYOR:****GEORGE F. RICHARDSON**, † '62, † '63, *'64.**ALDERMEN:**

Charles B. Coburn, '44, '51, *'56.

Hocum Hosford, '60, *'61, † '62, † '63, † '64,

John R. Southwick, '47, '65, *'66.

Joseph L. Sargent, '60, '61, *'66.

Edward C. Rice, '65, '66.

Abner W. Buttrick, '40, '44, '45, '50;
died June 29, '67.

Wm. E. Livingston, elected Sept. 9, '67.

William H. Parker, '61.

Albion J. Dudley, '62, '63, '64, *'66.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

John Shepard.

Calvin Sawtell.

Foster Wilson.

M. Gilbert Perkins, '61.

WARD 2.

Gustavus A. Gerry, '65, † '66, President.

Ruel J. Walker.

William Dobbins.

Silas Tyler, Jr.

WARD 3.

Jona. P. Folsom, '56, *'59, *'61, *'62.

Frederick T. North, '65, '66.

Samuel D. Prescott.

Nathan M. Wright.

WARD 4.

John B. Hunt.

John Q. A. Hubbard.

Alfred Scott, '66.

Thomas F. Burgess, '66.

WARD 5.

George L. Huntoon, '66.

George S. Cheney.

James Foster, '65.

John T. Lee, '66.

WARD 6.

Alfred H. Chase, '66.

James Lawton.

John N. Pierce, Jr.

Foster Nowell, '60, '61, res'd May 14, '67.

William Kittredge, elected Sept. 9, '67.

GEORGE GARDNER, Clerk.

1868.**MAYOR:****GEORGE F. RICHARDSON, † '62, † '63, *'64, † '67.****ALDERMEN:**

Charles B. Coburn, '44, '51, *'56, *'67. Edward C. Rice, '65, '66, *'67.
 Francis Jewett, '64, '65. William E. Livingston, *'67.
 John M. Pevey, resigned in July. Frederic Frye, '62, '63.
 Charles L. Hildreth, elected in September. Albion J. Dudley, '62, '63, '64, *'66, *'67.
 Silas Tyler, Jr., '67.

JOHN H. McALVIN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Calvin Sawtell, '67.
 John Shepard, '67.
 John F. Merrill.
 Frederic T. Greenhalge.

WARD 2.

Francis D. Munn.
 Joseph A. Patten, '55.
 Ruel J. Walker, '67.
 Henry S. Orange, '61, '62, '63.

WARD 3.

George W. Badger.
 Samuel D. Prescott, '67.
 William Walker.
 Albert A. Haggett.

WARD 4.

William H. Anderson.
 John Q. A. Hubbard, '67.
 Charles T. Crane.
 John B. Hunt, '67.

WARD 5.

Edwin Lamson.
 George S. Cheney, '67.
 William Kelley.
 Ethan N. Spencer.

WARD 6.

John N. Pierce, Jr., '67.
 James Lawton, '67.
 Francis Brown.
 Alfred H. Chase, '66, '67, President.

GEORGE GARDNER, Clerk.**1869.****MAYOR:****JONATHAN P. FOLSOM, '56, *'59, *'61, *'62, '67.****ALDERMEN:**

Francis Jewett, '64, '65, *'68. Hapgood Wright, '45, '46, *'56.
 Henry H. Wilder, '53, '54, *'60, '65. John Q. A. Hubbard, '67, '68.
 Charles L. Hildreth, *'68. George S. Cheney, '67, '68.
 Cyrus H. Latham, '63, *'64, *'65. Charles A. Stott, '59, '60.

JOHN H. McALVIN, City Clerk. Resigned March 15, 1869.
SAMUEL A. MCPHETRES, City Clerk. Elected March 15, 1869.

COMMON COUNCIL:**WARD 1.**

Frederic T. Greenhalge, '68.
 John H. Durgin, Jr.
 Patrick Keyes.
 Benjamin Patch.

WARD 2.

Joseph A. Patten, '55, '68.
 Phineas Jones.
 Francis D. Munn, '68.
 Amos Sanborn.

WARD 3.

George W. Badger, '68.
 Albert A. Haggett, '68.
 William Walker, '68.
 George E. Pinkham.

WARD 4.

William H. Anderson, '68, President.
 Simeon G. Lyford.
 Henry P. Carter.
 Epaphras A. Hill.

WARD 5.

William Kelley, '68.
 Willard A. Brown.
 William O. Fiske.
 Edwin Lamson, '68.

WARD 6.

Francis Brown, '68.
 Alpha B. Farr, '58.
 Lucian P. Stacy, '55.
 William Kittredge, '67.

GEORGE GARDNER, Clerk.

1870.**MAYOR:****JONATHAN P. FOLSOM, '56, *'59, *'61, *'62, '67, †'69.****ALDERMEN:**

Edward F. Sherman.	Hapgood Wright, '45, '46, *'56, *'69.
Frank F. Battles.	John Q. A. Hubbard, '67, '68, *'69.
Charles L. Hildreth, *'68, *'69.	Addison Putnam, 64.
Amos B. French.	Charles A. Stott, '59, '60, *'69.

SAMUEL A. MCPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

John H. Durgin, Jr., '69.
 Benjamin Patch, '69.
 Patrick Keyes, '69.
 Samuel G. Ladd.

WARD 2.

Phineas Jones, '69.
 John L. Moulton.
 Patrick Cummiskey.
 David G. Skillings.

WARD 3.

Albert A. Haggett, '68, '69, President.
 Henry P. Perkins, '60, '61.
 Hocom Hosford, '60, *'61, †'62, †'63,
 †'64, *'67, declined.
 Matthew Donovan.
 John L. Meadowcroft, elected Jan. 24.

WARD 4.

Epaphras A. Hill, '69.
 Henry P. Carter, '69.
 Simeon G. Lyford, '69.
 Michael Corbett.

WARD 5.

William O. Fiske, '69.
 Willard A. Brown, '69.
 James D. Hartwell.
 Jeremiah Crowley.

WARD 6.

Alpha B. Farr, '58, '69.
 William Kittredge, '67, '69.
 Lucian P. Stacy, '55, '69.
 John Stott.

GEORGE GARDNER, Clerk.**1871.****MAYOR:****EDWARD F. SHERMAN, *'70.****ALDERMEN:**

Frank F. Battles, *'70.	Albert A. Haggett, '68, '69, †'70.
William F. Salmon, '58, '59, †'60.	Henry C. Howe, '53, '54.
John W. Smith, '49, '50.	Frederick Ayer.
Amos B. French, *'70.	Addison Putnam, '64, *'70.

SAMUEL A. MCPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

John H. Durgin, Jr., '69, '70.
 Samuel G. Ladd, '70.
 Francis N. J. Haviland.
 Joel Knapp.

WARD 2.

William Dobbins, '67.
 John L. Moulton, '70.
 Patrick Cummiskey, '70.
 Amos A. Blanchard.

WARD 3.

Henry P. Perkins, '60, '61, '70, President.
 John L. Meadowcroft, '70.
 Horace Ela.
 Julius C. Jockow.

WARD 4.

Benjamin Walker, '65, '68.
 Michael Corbett, '70.
 Francis H. Chandler.
 Charles T. Goddard.

WARD 5.

Jeremiah Crowley, '70.
 Crawford Burnham.
 Henry C. Church.
 Patrick Lynch.

WARD 6.

Leonard Brown, '53, '54, '58, '59.
 John Stott, '70.
 Abel T. Atherton.
 Nathaniel C. Sanborn.

GEORGE GARDNER, Clerk.

1872.**MAYOR:****JOSIAH G. PEABODY**, *'50, '59, '60, †'65, †'66.**ALDERMEN:**

Henry C. Howe, '53, '54, *'71.

Alexander G. Cumnock.

Benjamin Patch, '69, '70.

Gustavus A. Gerry, '65, †'66, †'67.

Frederick T. North, '65, '66, '67.

Benjamin Walker, '65, '66, '71.

William Kelley, '68, '69.

Alpha B. Farr, '58, '69, '70.

SAMUEL A. MCPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

John E. Webb, '58, '59.

Alonzo F. Caswell.

Southwell Farrington.

True P. Jordan.

WARD 2.

Leonard Brown, '53, '54, '58, '59, '71.

Amos A. Blanchard, '71.

Joseph S. Brown.

Earl A. Thissell.

WARD 3.

Henry P. Perkins, '60, '61, '70, †'71, Pres.

Horace Ela, '71.

Julius C. Jockow, '71.

Charles F. Tilton.

WARD 4.

Nathaniel P. Favor.

Nathan W. Frye.

Henry A. Lord.

Alonzo L. Russell.

WARD 5.

Crawford Burnham, '71.

Charles F. Belden.

Luther J. Eames.

William Shepard.

WARD 6.

Abel T. Atherton, '71.

Nathaniel C. Sanborn, '71.

Samuel M. Chase.

Julian Talbot.

GEORGE GARDNER, Clerk.**1873.****MAYOR:****FRANCIS JEWETT**, '64, '65, *'68, *'69.**ALDERMEN:**

Jonathan P. Folsom, '56, *'59, *'61, *'62, '67, †'69, †'70.

George Runels, '62, *'64.

Edward Tuck, *'56, '58, *'59, declined.

Isaac Farrington, '46, '47, declined.

William Dobbins, '67, '71, elected Jan. 14.

Charles A. F. Swan, elected January 14.

Jacob H. Sawyer.

Jeremiah Crowley, '70, '71.

Alpha B. Farr, '58, '69, '70, *'72.

George Stevens.

SAMUEL A. MCPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

John E. Webb, '58, '59, '72.

Alonzo F. Caswell, '72.

Frank Brady.

Stephen J. Smiley.

WARD 2.

Joseph S. Brown, '72.

Earl A. Thissell, '72.

Daniel Stickney.

Edward P. Woods.

WARD 3.

Albert A. Haggett, '68, '69, †'70, *'71, Pres.

Charles F. Tilton, '72, resigned March 1.

William Bass.

James Owens.

James A. Loughlin, elected April 8.

WARD 4.

Atwell F. Wright, '63, '64.

Nathaniel P. Favor, '72.

Nathan W. Frye, '72.

Henry A. Lord, '72.

WARD 5.

Robert H. Butcher, '66.

Charles F. Belden, '72.

Jared P. Maxfield.

George Smith.

WARD 6.

Nathaniel C. Sanborn, '71, '72.

Samuel M. Chase, '72.

George W. S. Hurd.

Artemas S. Tyler.

GEORGE GARDNER, Clerk.

1874.**MAYOR:****FRANCIS JEWETT, '64, '65, *'68, *'69, †'73.****ALDERMEN:**

Jeremiah Crowley, '70, '71, *'73.	Jonathan Kendall, '42, '44, '52.
Benjamin Walker, '65, '66, '71, *'72.	George L. Huntoon, '66, '67.
Alonzo F. Caswell, '72, '73.	Nathaniel C. Sanborn, '71, '72, '73.
Joseph S. Brown, '72, '73.	George Stevens, *'73.

SAMUEL A. MCPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

Charles A. Welch, '57.
 Frank Brady, '73.
 Stephen J. Smiley, '73.
 Charles H. Harvey.

WARD 2.

Daniel Stickney, '73.
 Edward P. Woods, '73.
 Charles J. Eastman.
 Edward E. Reed.

WARD 3.

Julius C. Jockow, '71, '72.
 James Owens, '73.
 James A. Loughlin, '73.
 George W. Tilton.

WARD 4.

Charles T. Goddard, '71.
 Nathan W. Frye, '72, '73, President.
 Jacob H. Sawyer, *'73.
 Julian A. Richardson.

WARD 5.

Jared P. Maxfield, '73.
 John B. Lyford,
 Samuel P. Marin.
 John Scott.

WARD 6.

George W. S. Hurd, '73.
 Joel A. Abbott.
 Thomas Carolin.
 Jason Fuller.

GEORGE GARDNER, Clerk, died May 29.**DAVID CHASE, Clerk, elected June 4.****1875.****MAYOR:****FRANCIS JEWETT, '64, '65, *'68, *'69, †'73, †'74.****ALDERMEN:**

Benjamin Walker, '65, '66, '71, *'72, *'74.	Hapgood Wright, '45, '46, *'56, *'69.
Jacob Rogers.	James Owens, '73, '74.
John A. Goodwin.	Alden B. Richardson.
Joseph S. Brown, '72, '73, *'74.	Samuel A. Chase.

SAMUEL A. MCPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

Charles A. Welch, '57, '74.
 Charles H. Harvey, '74.
 John F. Howard.
 John W. Welch.

WARD 2.

Earl A. Thissell, '72, '73.
 Edward E. Reed, '74.
 William A. Read.
 Leavitt R. J. Varnum.

WARD 3.

Albert A. Haggett, '68, '69, †'70, *'71.
 George W. Tilton, '74. [†'73, Pres.
 Charles Cowley.
 Thomas R. Garity.

WARD 4.

Josiah Butler.
 Francis Carll.
 Edward P. Dennis.
 Edward Stockman.

WARD 5.

James D. Hartwell, '70.
 John B. Lyford, '74.
 Orford R. Blood.
 Charles W. Sleeper.

WARD 6.

Joel A. Abbott, '74.
 Thomas Carolin, '74.
 Jason Fuller, '74.
 Albert D. Wright.

DAVID CHASE, Clerk.

1876.**MAYOR:****CHARLES A. STOTT, '59, '60, *'69, *'70.****ALDERMEN:**

Jacob Rogers, *'75.	Henry A. Hildreth.
John A. Goodwin, *'75.	George E. Stanley.
Albert A. Haggett, '68, '69, ‡'73, ‡'75.	Francis Carll, '75.
Charles F. Belden, '72, '73.	William H. Wiggin, '57.

SAMUEL A. McPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

John W. Welch, '75.
 Lewis Stiles.
 Daniel W. Manning.
 David M. Collins, '56, declined.
 John F. Howard, '75, elected January 11.

WARD 2.

Leavitt R. J. Varnum, '75.
 Charles E. Hallowell.
 Charles Callahan.
 William A. Read, '75.

WARD 3.

Charles Cowley, '75.
 Charles H. Kimball.
 Charles Runels.
 James Howard, died after election.
 William H. Grady, elected January 11.

WARD 4.

Edward Stockman, '75, resigned May 23.
 Gardner W. King.
 Stephen H. Jones.
 Charles D. Starbird.
 James W. Bennett, elected June 22.

WARD 5.

Orford R. Blood '75.
 John F. Kimball, President from May 23.
 Charles H. Hanson.
 M. Gilbert Perkins, '61, '67.

WARD 6.

Edwin Sanborn.
 Benjamin C. Dean, Pres., resig'd May 23.
 Charles H. Walker.
 John J. Pickman.
 Willis Farrington, elected June 22.

DAVID CHASE, Clerk.**1877.****MAYOR:****CHARLES A. STOTT, '59, '60, *'69, *'70, †'76.****ALDERMEN:**

Jeremiah Crowley, '70, '71, *'73, *'74.	Orford R. Blood, '75, '76, seat vacated.
Horace R. Barker.	Stephen B. Puffer, declined el. January 2.
George E. Stanley, *'76.	Robert Park.
Charles H. Kimball '76.	George E. Pinkham, '69.
George P. Walker.	

SAMUEL A. McPHETRES, City Clerk.**COMMON COUNCIL:****WARD 1.**

Daniel W. Manning, '76.
 Lewis Stiles, '76.
 John Courtney.
 Frank Brady, '73, '74, resig'd March 27.
 Jared P. Maxfield, '73, '74, elected May 8.

WARD 2.

Charles E. Hallowell, '76.
 Francis D. Munn, '68, '69.
 Charles H. Robbins.
 Oliver M. Harding.

WARD 3.

William H. Grady, '76.
 Patrick Lynch.
 Simon Kelly.
 George E. Davis.

WARD 4.

Gardner W. King, '76.
 James W. Bennett, '76.
 Irving K. Goodale.
 Orlnado Blodgett.

WARD 5.

John F. Kimball, ‡'76.
 Charles H. Hanson '76.
 Peter S. Coburn.
 Robert Goulding.

WARD 6.

Edwin Sanborn, '76.
 John J. Pickman, '76.
 Charles H. Walker, '76.
 Augustus E. Spaulding, dec. January 10
 George S. Cushing, elected February 6.

DAVID CHASE, Clerk.

1878.**MAYOR:****JOHN A. G. RICHARDSON.****ALDERMEN:**

Stephen B. Puffer, *'77.
Robert Park, *'77.
Horace R. Barker, *'77.
George F. Scribner, '57.

George E. Scripture.
Joseph S. Pollard, '64, '65, [*'77.
Jeremiah Crowley, '70, '71, *'73, *'74.
Nathaniel C. Sanborn, '71, '72, '73, *'74.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:**WARD 1.**

John Courtney, '77.
John J. Mealey.
Joseph M. Ambrose.
Charles H. Harvey, '74, '75.

WARD 2.

Oramel A. Brigham.
Edward M. Tucke.
William W. Clark.
Albert W. Monty.

WARD 3.

Simon Kelly, '77.
Edward Cawley.
Henry P. Morris.
Samuel D. Butterworth.

WARD 4.

Irving K. Goodale, '77.
Orlando Blodgett, '77.
Robert G. Bartlett.
Stephen H. Jones, '76.

WARD 5.

Robert Goulding, '77.
Peter S. Coburn, '77.
John F. Kimball, † '76, † '77, President.
Enos O. Kingsley, '56.

WARD 6.

George S. Cushing, '77.
Eli W. Hoyt.
Luke B. Taylor.
Miles F. Brennan, to January 22.
Thomas Nesmith, from January 22.

DAVID CHASE, Clerk.

1879.**MAYOR:****JOHN A. G. RICHARDSON, † '78.****ALDERMEN:**

Horace R. Barker, *'77, *'78.
Charles A. R. Dimon.
Joseph S. Pollard, '64, '65, *'78.
Charles S. Lilley.

George E. Scripture, *'78.
George F. Scribner, '57, *'78.
Charles F. Howe.
Robert Goulding, '77, '78.

SAMUEL A. MCPHETRES, City Clerk.

COMMON COUNCIL:**WARD 1.**

Joseph M. Ambrose, '78.
John O'Donnell.
James Kelly.
Richard J. Noonan.

WARD 2.

Albert W. Monty, '78.
Charles H. Richardson.
William K. Chase, resigned November 25.
Edwin A. Robinson.
Edward M. Tucke, '78, elected Dec. 9.

WARD 3.

Edward Cawley, '78.
Henry P. Morris, '78.
William T. Benson.
Patrick A. Rogers.

WARD 4.

Robert G. Bartlett, '78.
Fred Woodies.
Charles F. Varnum.
Charles E. Farrington.

WARD 5.

Albert W. Burnham.
Ambrose L. Ready.
Joseph M. Wilson.
Edward B. Peirce, President.

WARD 6.

Eli W. Hoyt, '78.
Luke B. Taylor, '78.
Major A. Shaw.
Miles F. Brennan, '78.

DAVID CHASE Clerk.

1880.

MAYOR:

FREDERIC T. GREENHALGE, '68, '69.

ALDERMEN:

James D. Hartwell, '70, '75.
Atwill F. Wright, '63, '64.
Charles H. Richardson.
Edwin Lamson, '68, '69.

Isaac F. Scripture, *'62, *'63.
Robert Wood.
Charles H. Coburn.
James C. Abbott.

SAMUEL A. McPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

James Kelly, '79.
Richard J. Noonan, '79.
Thomas J. Flynn.
Lawrence Cummings.

WARD 2.

Edwin A. Robinson, '79.
Wilbur L. Bates.
Samuel W. Foster.
Earl A. Thissell, '72, '73, '75, President.

WARD 3.

Peter H. Donohoe.
William T. Benson, '79.
Patrick A. Rogers, '79.
Frank Wood.

WARD 4.

Fred Woodies, '79.
Charles F. Varnum, '79.
Charles E. Farrington, '79.
Charles D. Starbird, '76.

WARD 5.

Joseph M. Wilson, '79.
Ambrose L. Ready, '79.
Samuel Hosmer.
Edward B. Peirce, ‡ '79.

WARD 6.

Benjamin F. Freeman.
J. Tyler Stevens.
Charles C. Hutchinson.
Henry C. Cooper.

DAVID CHASE, Clerk.

1881.

MAYOR:

FREDERIC T. GREENHALGE, '68, '69, † '80.

ALDERMEN:

Charles H. Richardson, *'80.
Isaac F. Scripture, *'62, *'63, *'80.
Robert Wood, *'80.
Ambrose L. Ready, '79, '80.

Levi Sprague, '59, '64.
Julius A. Stiles.
Samuel D. Butterworth, '78.
Thomas R. Garity, '75.

SAMUEL A. McPHETRES, City Clerk.

COMMON COUNCIL:

WARD 1.

Thomas J. Flynn, '80.
Lawrence Cummings, '80.
Robert J. Thomas.
Jeremiah J. Hayes.

WARD 2.

Zachariah D. Hall.
James M. Howe, '57, '59.
Hubert M. Potter.
Moses Gibson.

WARD 3.

Frank Wood, '80.
Peter H. Donohoe, '80.
John E. Maguire.
D. Moody Prescott.

WARD 4.

Julius C. Johnson.
Stephen C. Davis.
Edward Garner.
William N. Osgood.

WARD 5.

Atkinson C. Varnum.
Samuel Hosmer, '80.
Samuel P. Marin, '74.
Albert W. Burnham, '79.

WARD 6.

Charles C. Hutchinson, '80.
Albert G. Thompson.
Thomas Nesmith, '78.
Lawrence J. Smith.

DAVID CHASE, Clerk.

1882.**MAYOR:****GEORGE RUNELS, '62, *'64.****ALDERMEN:**

Thomas R. Garity, '75, *'81, Chairman. D. Moody Prescott, '81.
 * Charles W. Sleeper. George S. Cushing, '77, '78.
 George B. Smith. John F. Phillips.
 William A. Wright, '63, '66. † John Welch.
 David Whitaker.

† SAMUEL A. McPHETRES, City Clerk. § DAVID W. O'BRIEN, City Clerk.

* Resigned, May 23; special election to fill vacancy, June 20.

† Elected June 20, to fill vacancy.

‡ Died Sept. 23, 1882

§ Elected Oct. 4, 1882.

COMMON COUNCIL:**WARD 1.**

Robert J. Thomas, '81.
 Jeremiah J. Hayes, '81.
 Dennis J. Crowley.
 John A. Walsh.

WARD 2.

Zachariah D. Hall, '81.
 James M. Howe, '57, '59, '81.
 Moses Gibson, '81.
 James F. Puffer, Jr.

WARD 3.

Frank Wood, '80, '81.
 John E. Maguire, '81.
 John J. Mead.
 James Grady.

WARD 4.

Julius C. Johnson, '81.
 Stephen C. Davis, '81.
 Edward Garner.
 William N. Osgood, '81, President.

WARD 5.

Atkinson C. Varnum, '81.
 Albert W. Burnham, '79, '81.
 Artemas B. Woodworth.
 Horace B. Barnes.

WARD 6.

Albert G. Thompson, '81.
 Lawrence J. Smith, '81.
 Thaddeus S. Cobb.
 Miles J. Fletcher.

DAVID CHASE, Clerk.

1883.**MAYOR:****JOHN J. DONOVAN.****ALDERMEN:**

John F. Phillips, *'82, Chairman. D. Moody Prescott, '81, *'82.
 George B. Smith, *'82. George W. Fifield.
 Robert J. Thomas, '81, '82. John Welch, *'82.
 David Whitaker, *'82. Miles J. Fletcher, '82.

DAVID W. O'BRIEN, City Clerk.

COMMON COUNCIL:**WARD 1.**

Dennis J. Crowley, '82.
 John J. Hogan.
 James H. Cahill.
 Daniel Murphy.

WARD 2.

Samuel Lawrence, '50.
 Joseph S. Brown, '72, '73, *'74, *'75.
 Albert W. Monty, '78, '79.
 John F. Thissell.

WARD 3.

James Grady, '82.
 John J. Mead, '82.
 Patrick J. Smith.
 Frank J. Donohue.

WARD 4.

James G. Elliott.
 Solomon K. Dexter.
 Alonzo L. Russell, '72.
 Geo. A. Bennett.

WARD 5.

Edward B. Pierce, † '79, '80.
 Artemas B. Woodworth, '82.
 John P. Mahoney.
 George L. Ashworth.

WARD 6.

Lawrence J. Smith, '81, '82.
 Thaddeus S. Cobb, '82.
 J. Frank Page.
 Michael F. Clark.

DAVID CHASE, Clerk.

1884.

MAYOR:

JOHN J. DONOVAN, † '93.

ALDERMEN:

Robert J. Thomas, '81, '82, *'83, Chair'n.	Jeremiah Crowley, '70, '71, *'73, *'74, *'77, *'78.
Miles J. Fletcher, '82, *'83.	Peter H. Donohoe, '80, '81.
George W. Fifield, '83.	Freeman B. Shedd.
Thaddeus S. Cobb, '82, '83.	
Edward B. Quinn.	

DAVID W. O'BRIEN, City Clerk.

COMMON COUNCIL:

WARD 1.

John J. Hogan, '83, President.
 James H. Cahill, '83.
 Daniel Murphy, '83.
 James H. Morrison.

WARD 2.

Joseph S. Brown, '72, '73, *'74, *'75, '83.
 Albert W. Monty, '78, '79, '83.
 Earl A. Thissell, '72, '73, '75, † '80.
 John R. Pike.

WARD 3.

Patrick J. Smith, '83.
 Peter J. Brady.
 Thomas J. Sparks.
 John Nolan.

WARD 4.

James G. Elliott, '83.
 Solomon K. Dexter, '83.
 Alonzo L. Russell, '72, '83.
 George A. Bennett, '83.

WARD 5.

Edward B. Peirce, † '79, '80, † '83.
 George L. Ashworth,
 Joseph M. Wilson, '79, '80.
 James S. Hanson.

WARD 6.

J. Frank Page, '83.
 Michael F. Clark, '83.
 Alfred M. Chadwick.
 Marcellus H. Fletcher.

DAVID CHASE, Clerk.

1885.

MAYOR:

EDWARD J. NOYES.

ALDERMEN:

John F. Phillips, *'82, *'83, Chairman.	James D. Hartwell, '70, '75, *'80.
John F. Howe, '57, '58, *'59.	George F. Penniman.
William D. Brown.	Oliver E. Cushing.
George E. Stanley, *'76, *'77.	James Francis.

SAMUEL M. CHASE, City Clerk.

COMMON COUNCIL:

WARD 1.

Patrick H. Plunkett.
 James H. Morrison, '84.
 Thomas J. Enright.
 Henry F. Keyes.

WARD 2.

George W. Brothers.
 Walter M. Sawyer.
 James R. Fulton.
 Francis D. Munn, Jr.

WARD 3.

Peter J. Brady, '84.
 Patrick J. Smith, '83, '84.
 John Nolan, '84.
 Thomas J. Sparks, '84.

WARD 4.

Arnold S. Welch.
 George A. Roper.
 William A. Lang.
 Frank W. Howe.

WARD 5.

Wilson W. Carey.
 James S. Hanson, '84.
 Henry L. Newhall.
 Elwyn W. Lovejoy.

WARD 6.

Alfred M. Chadwick, '84, President.
 George R. Richardson.
 Luke B. Taylor, '78, '79.
 William H. White.

DAVID CHASE, Clerk.

1886.

MAYOR:

JAMES C. ABBOTT.

ALDERMEN:

Jeremiah Crowley, '70, '71, *'73, *'74, Daniel Wright.
 *'77, *'78, *'84, Chairman. Samuel D. Butterworth, *'78, *'81.
 John F. Phillips, *'82, *'83, *'85. George F. Penniman, *'85.
 Stephen B. Puffer, *'77, *'78. James Francis, *'85.
 George E. Stanley, *'76, *'77, *'85.

SAMUEL M. CHASE, City Clerk.

COMMON COUNCIL:

WARD 1.

Peter B. Sherlock.
 Patrick H. Plunkett, '85.
 Thomas J. Enright, '85.
 Timothy H. Brennan.

WARD 2.

Walter M. Sawyer, '85, President.
 Charles H. Richardson, '79.
 James R. Fulton, '85.
 Francis D. Munn, Jr., '85.

WARD 3.

Daniel Cleary.
 Patrick J. Mahan.
 Edward D. McVey.
 Thomas J. Sparks, '84, '85.

WARD 4.

Arnold S. Welch, '85.
 George A. Roper, '85.
 Frank W. Howe, '85.
 William A. Lang, '85.

WARD 5.

Henry L. Newhall, '85.
 Elwyn W. Lovejoy, '85.
 Wilson W. Carey, '85.
 Roswell M. Boutwell, '85.

WARD 6.

Lawrence J. Smith, '81, '82, '83.
 John E. Drury.
 Charles H. Hobson.
 Marcellus H. Fletcher, '84.

DAVID CHASE, Clerk.

1887.

MAYOR:

JAMES C. ABBOTT, † '86.

ALDERMEN:

Stephen B. Puffer, *'77, *'78, *'86, Chairman. Peter H. Donohoe, '80, 81, *'84.
 Nathan D. Pratt. Miles J. Fletcher, '82, *'83, *'84.
 Francis C. Plunkett. Frederick Frye, '62, '63, *'68.
 August Fels. Marcellus H. Fletcher, '84, '86.

DAVID W. O'BRIEN, City Clerk.

COMMON COUNCIL:

WARD 1.

Michael J. Garvey.
 Dennis A. Sullivan.
 Daniel Murphy, '83, '84.
 Dennis J. Leary.

WARD 2.

Walter M. Sawyer, † '86.
 Charles H. Richardson, '79, '86.
 George C. Evans.
 Horace P. Beals.

WARD 3.

George B. McKenna.
 John Nolan, '84, '85.
 Daniel Cleary, '86.
 Patrick J. Smith, '83, '84, '85.

WARD 4.

Millard F. Wright.
 Edmund B. Conant.
 Jesse H. Shepard.
 Richard Dobbins.

WARD 5.

Roswell M. Boutwell, '86.
 George W. Brothers, '85.
 Clarence G. Coburn.
 James H. Carmichael, President.

WARD 6.

Richard B. Allen.
 John E. Drury, '86.
 Patrick Conlon.
 Edward Gallagher.

WILLIAM J. COUGHLIN, Clerk.

1888.**MAYOR:****CHARLES D. PALMER.****ALDERMEN:**

George A. Scribner.
George E. Putnam.
Charles Runels, '76.
Charles E. Carter.
Edward D. Holden.

Arthur Staples.
Roswell M. Boutwell, '86, '87.
Alfred M. Chadwick, '84, †'85, Chairm'n.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Dennis A. Sullivan, '87.
Dennis J. Leary, '87.
Daniel Murphy, '83, '84, '87.
Michael J. Garvey, '87.

WARD 2.

Frank J. Sherwood.
Horace P. Beals, '87.
Harry E. Shaw.
Pierre A. Brousseau.

WARD 3.

John F. Rogers.
Owen M. Donohoe.
Thomas J. Sparks, '84, '85, '86.
*John F. Roane.
†Patrick H. Brosnahan.
*Resigned Aug. 9. Special Election to
fill vacancy Sept. 18.
†Elected Sept. 18 to fill vacancy.

DAVID CHASE, Clerk.**WARD 4.**

*Millard F. Wright, '87.
Edmund B. Conant, '87, President.
Jesse H. Shepard, '87.
Richard Dobbins, '87.
†Alonzo G. Walsh.
*Resigned April 24. Special Election to
fill vacancy June 5.
†Elected June 5 to fill vacancy.

WARD 5.

Charles C. Hartwell.
Clarence G. Coburn, '87.
George W. Brothers, '85.
Joseph S. Lapierre.

WARD 6.

William E. Westall.
Frank Brown.
Richard B. Allen, '87.
Abbott Lawrence.

1889.**MAYOR:****CHARLES D. PALMER, †'88.****ALDERMEN:**

George A. Scribner, *'88.
Walter M. Sawyer, '85, †'86, '87.
George E. Putnam, *'88.
Edward D. Holden.

Roswell M. Boutwell, '86, '87, *'88, Ch'n.
John H. Fuller.
William F. Senter.
John E. Drury, '86, '87.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Patrick J. Savage.
Joseph H. Callahan.
Daniel H. Courtney.
William J. Johnson.

WARD 2.

*Samuel C. George.
Pierre A. Brousseau, '88.
Arthur H. Cluer.
Frank J. Sherwood, '88.
†James Stuart Murphy.
*Res'd June 9. †Ele. July 2, to fill vacancy.

WARD 3.

Owen M. Donohoe, '88.
Stephen Garrity.
Patrick H. Brosnahan, '88.
Thomas J. Sparks, '84, '85, '86, '88.

DAVID CHASE, Clerk.**WARD 4.**

B. Frank Hale.
Edwards Cheney.
Alonzo G. Walsh, '88.
Frank Gray.

WARD 5.

Orford R. Blood, '75, '76.
Charles C. Hartwell, '88.
Henry W. Ladd.
Henry J. Draper.

WARD 6.

William E. Westall, '88, President.
Abbott Lawrence, '88.
Albert Crowell.
Frank Brown, '88.

1890.**MAYOR:****CHARLES D. PALMER, '88, † '89.****ALDERMEN:**

Albert D. Carter.
 Watson A. Dickinson.
 John E. Drury, '86, '87, *'89.
 Edmund D. Fletcher.

John H. Fuller, *'89, Chairman.
 Walter M. Sawyer, '85, † '86, '87, *'88.
 Samuel E. Snow.
 Joseph M. Wilson, '79, '80, '84.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Joseph H. Callahan, '89.
 Daniel H. Courtney, '89.
 William J. Johnson, '89.
 Patrick J. Savage, '89.

WARD 2.

Newell Abare.
 Arthur H. Cluer, '89.
 Walter C. Coburn.
 James Stuart Murphy, '89.

WARD 3.

Patrick H. Brosnahan, '88, '89.
 Robert C. Gallagher.
 Charles L. Marren.
 Thomas J. Sparks, '84, '85, '86, '88, '89.

WARD 4.

Edwards Cheney, '89.
 Frank Gray, '89.
 B. Frank Hale, '89.
 Alonzo G. Walsh, '88, '89, President.

WARD 5.

Orford R. Blood, '75, '76, '89.
 Herbert M. Jacobs.
 Henry W. Ladd, '89.
 Louis P. Turcotte.

WARD 6.

Albert Crowell, '89.
 Daniel D. Driscoll.
 James Gookin.
 Edward F. Spalding.

DAVID CHASE Clerk.**1891.****MAYOR:****GEORGE W. FIFIELD, *'83, *'84.****ALDERMEN:**

Richard B. Allen, '86, '87.
 James W. Cassidy.
 Jeremiah Crowley, '70, '71, *'73, *'74, *'77,
 *'78, *'84, *'86, Chairman.
 Watson A. Dickinson, *'90.

Thomas J. Enright, '85, '86.
 George H. Frye.
 Stephen B. Puffer, *'77, *'78, *'86, *'87.
 George F. Tilton.

MICHAEL J. DOWD, City Clerk.**COMMON COUNCIL:****WARD 1.**

Patrick H. Barry.
 James F. Doherty.
 John J. Sullivan.
 Peter F. Garrity.

WARD 2.

Newell Abare, '90.
 Adolphe Benard.
 Walter C. Coburn, '90.
 George H. Marston.

WARD 3.

Patrick J. Baxter.
 John J. Gilbride.
 Charles H. Marren, '90.
 Thomas J. Sparks, '84, '85, '86, '88, '89,
 '90, President.

WARD 4.

Edwin L. Giles.
 Fred Horne.
 Wallace G. Parkin.
 Eugene C. Wallace.

WARD 5.

Herbet M. Jacobs, '90.
 George D. Kimball.
 John A. Speirs.
 Louis P. Turcotte, '90.

WARD 6.

James A. Cawley.
 James J. Dolan.
 Daniel D. Driscoll, '90
 James Gookin, '90.

DAVID CHASE, Clerk.

1892.**MAYOR:****GEORGE W. FIFIELD, *'83, *'84, † '91.****ALDERMEN:**

Samuel D. Butterworth, *'78, *'81, *'86.	Stephen J. Johnson.
James W. Cassidy, *'91.	Freeman W. Puffer.
William J. Coughlin.	Frank E. Stowell.
Albert A. Haggett, '68, '69, † '70, *'71,	Charles F. Varnum, '79, '80.
*'76, Chairman.	

MICHAEL J. DOWD, City Clerk.**COMMON COUNCIL****WARD 1.**

John Brunette.
James O'Neill,
Joseph O'Rourke.
John J. Sullivan, '91.

WARD 2.

Adolphe Benard, '91.
George H. Marston, '91.
Frank Scott.
Hugh A. Thompson.

WARD 3.

Patrick J. Baxter, '91.
John J. Gilbride, '91.
Thomas J. Sparks, '84, '85, '86, '88, '89,
'90, † '91, President.
William H. Stafford.

WARD 4.

Edwin L. Giles, '91.
Fred Horne, '91.
Wallace G. Parkin, '91.
Moses Wyman.

WARD 5.

Constant Henotte.
Patrick H. Kehoe.
Joseph A. McDonald.
Charles W. Swan.

WARD 6.

William T. Benson, '79, '80.
James J. Dolan, '91.
Thomas F. Hoban.
Michael F. McCarthy.

DAVID CHASE, Clerk.**1893.****MAYOR:****JOHN J. PICKMAN, '76, '77.****ALDERMEN:**

George R. Choate.	Freeman W. Puffer, *'92.
George C. Evans, '87.	Stephen B. Puffer, *'77, *'78, *'86, *'87,
Stephen J. Johnson, *'92.	*'91.
Elwyn W. Lovejoy, '85, '86.	William E. Westall, '88, † '89, Chairman.
Joseph A. McDonald, '92.	

MICHAEL J. DOWD, City Clerk.**COMMON COUNCIL:****WARD 1.**

John Brunette, '92.
Patrick J. O'Brien.
James O'Neil, '92.
Fred H. Rourke.

WARD 2.

Charles H. Boisvert.
Frank Scott, '92.
Hugh A. Thompson, '92.
George H. Tryder.

WARD 3.

Frank Dunlap.
John J. Grady.
John Joseph O'Connor.
William H. Stafford, '92.

WARD 4.

George E. Barclay.
William J. Hills.
Charles T. Killpartrick.
Moses Wyman, '92.

WARD 5.

Cyrille Constantineau.
Patrick J. Custy.
Charles H. Noble.
James O'Sullivan.

WARD 6.

William T. Benson, '79, '80, '92, Pres.
James J. Dolan, '91, '92.
Thomas F. Hoban, '92.
Anthony Robinson.

FRANK J. SIMONDS, Clerk.

1894.**MAYOR:****JOHN F. PICKMAN, '76, '77, † '93.****ALDERMEN:**

Charles N. Bagley.
 Watson A. Dickinson, *'90, *'91.
 Frank Dunlap, '93.
 Coolidge R. Johnson.
 Stephen J. Johnson, *'92, *'93.

Elwyn W. Lovejoy, '85, '86, *'93, Chair-
 man.
 George E. Stanley, *'76, *'77, *'85, *'86.
 William E. Westall, '88, † '89, *'93.

MICHAEL J. DOWD, City Clerk.**COMMON COUNCIL:****WARD 1.**

Matthew M. Mansfield.
 Patrick J. O'Brien, '93.
 Fred H. Rourke, '93.
 John J. Ryan.

WARD 2.

J. Henry Collins.
 John G. Gordon.
 Fred W. Sanborn.
 George H. Tryder, '93.

WARD 3.

Joseph H. Gormley.
 John J. O'Connell.
 John Joseph O'Connor, '93.
 Thomas J. Sparks, '84, '85, '86, '88, '89,
 '90, † '91, † '92, President.

WARD 4.

George E. Barclay, '93.
 William L. Hills, '93.
 Charles T. Killpartrick, '93.
 Luther F. Kittredge.

WARD 5.

Patrick J. Cxsty, '93.
 Frederick E. Labarge.
 Charles H. Noble, '93.
 John Oliver.

WARD 6.

William T. Benson, '79, '80, '92, † '93,
 Died May 21, 1894.
 William F. Curtin.
 Charles Riley.
 Anthony Robinson, '93.
 Thomas O'Day, Elected July 17, '94.

FRANK J. SIMONDS, Clerk.**1895.****MAYOR:****WILLIAM F. COURTNEY.****ALDERMEN:**

Frank B. Dow.
 Frederic J. Flemings.
 William L. Hills, '93, '94.
 Charles E. Howe.

George H. Tryder, '93, '94.
 Daniel H. Varnum, Chairman.
 John C. Wilson.
 Moses Wyman, '92, '93.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Patrick H. Barry, '91.
 Thomas F. Garvey.
 Hugh Maguire, Jr.,
 Matthew M. Mansfield.

WARD 2.

Edwin S. Eastman.
 William Hounsell.
 Willis E. Morse.
 Fred W. Sanborn, '94.

WARD 3.

Patrick F. Delehanty.
 Joseph H. Gormley, '94.
 James F. Miskella.
 Timothy J. Reynolds.

WARD 4.

David Dickson.
 Edward T. Goward.
 Jonathan G. Hunton.
 Herbert E. Webster.

WARD 5.

Eugene E. Dennison.
 George W. Hartwell.
 John Oliver.
 Francis P. Rivet.

WARD 6.

William F. Curtin, '94, President.
 Thomas O'Day, '94.
 Charles Riley, '94.
 John E. Sullivan.

FRANK J. SIMONDS, Clerk.

1896.**MAYOR:****WILLIAM F. COURTNEY, †'95.****ALDERMEN:**

Jeremiah Crowley, '70, '71, *'73, *'74, John H. McAlvin.
 *'77, *'78, *'84, *'86, Chairman. James A. Pevey.
 Frank B. Dow, *'95. George H. Tryder, '93, '94, *'95.
 Frederic J. Flemings, *'95. Edward M. Tucke.
 Charles E. Howe, *'95. John C. Wilson, *'95.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL:****WARD 1.**

William Hounsell, '95, ward 2.
 Jonathan G. Hunton, '95, ward 4.
 Homer B. Nay.

WARD 2.

William J. Dunn.
 Hugh Maguire, Jr., '95, ward 1.
 Dennis J. Pendergast.

WARD 3.

David Dickson, '95, ward 4.
 Frank H. Hallett.
 Herbert M. Jacobs, '90, '91, ward 5.

WARD 4.

James F. Miskella, '95, ward 3.
 Stephen O'Hare.
 Timothy J. Reynolds, '95, ward 3.

WARD 5.

John P. O'Hare.
 John E. Sullivan, '95, ward 3.
 Charles E. Thornton.

WARD 6.

William E. Badger.
 Sidney Drewett.
 Edwin S. Eastman.

WARD 7.

George W. Hartwell, '95, ward 5.
 Francis P. Rivet, '95, ward 5.
 Lorenzo E. Smith.

WARD 8.

Fred A. George.
 William H. Penn.
 Herbert E. Webster, '95, ward 4, Pres't.

WARD 9.

Charles A. Eveleth. Henry K. White.
 Carl G. A. F. W. E. Pihl.

FRANK N. OWEN, Clerk.**1897.****MAYOR:****WILLIAM F. COURTNEY, †'95, †'96.****ALDERMEN:**

Charles H. Cosgrove. Charles E. Howe, *'95, *'96, Chairman.
 Lucius A. Derby. Abbott Lawrence, '88, '89.
 Edwin S. Eastman, '95, '96. Edward B. Pierce, †'79, '80, †'83, '84.
 Edward T. Goward, '95. Fred A. Tuttle.
 George L. Hooper.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL:****WARD 1.**

Anadore B. Bosca.
 Clarence W. Dana.
 Samuel Scott.

WARD 2.

William J. Dunn, '96.
 James Kennedy.
 Dennis J. Pendergast, '96.

WARD 3.

William H. Brown.
 James Smith.
 Oliver D. Wilder.

WARD 4.

Francis M. Fagan.
 James F. Miskella, '95, '96.
 Stephen O'Hare, '96.

WARD 5.

George Farley.
 Michael E. Sullivan.
 Charles E. Thornton, '96.

WARD 6.

John H. Beaulieu.
 Walter F. Leighton.
 George H. Taylor.

WARD 7.

Clovis Belanger.
 Lorenzo E. Smith, '96.
 Lincoln R. Welch.

WARD 8.

Arthur W. Lang.
 Charles F. Libby.
 William H. Penn, '96, President.

WARD 9.

Butler Ames. Louis B. Sykes.
 Henry K. White, '96.

FRANK N. OWEN, Clerk.

1898.**MAYOR:****JAMES W. BENNETT, '76, '77.****ALDERMEN:**

Charles H. Cosgrove, *'97.

Lucius A. Derby, *'97.

Charles A. R. Dimon, *'79, Chairman.

Edward T. Goward, '95, *'97.

Guy Holbrook.

Oliver A. Libby.

Edward B. Peirce, †'79, '80, †'83, '84, *'97.

Francis P. Rivet, '95, '96.

Fred A. Tuttle, *'97.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL:**WARD 1.**

Anadore B. Bosca, '97.

Clarence W. Dana, '97.

Charles D. Paige.

WARD 2.

Thomas F. Garvey, '95.

James Kennedy, '97.

Frank McMahon.

WARD 3.

James Smith, '97.

Burton H. Wiggin.

Oliver D. Wilder, '97.

WARD 4.

Francis M. Fagan, '97.

Michael J. Markham.

John J. Roark.

WARD 5.

George A. Farley, '97.

William J. McCluskey.

Michael Sullivan, '97.

WARD 6.

John H. Beaulieu, '97.

Walter F. Leighton, '97.

George H. Taylor, '97, President.

WARD 7.

Alfred J. Howe.

Charles H. Merrill.

Eben B. Stafford.

WARD 8.

Arthur W. Lang, '97.

Charles F. Libby, '97.

Anthony D. Mitten.

WARD 9.

Walter E. Murkland.

Louis B. Sykes, '97.

William D. Whittet.

FRANK M. DOWLING, Clerk.

1899.**MAYOR:****JEREMIAH CROWLEY, '70, '71, *'73, *'74, *'77, *'78, *'84, *'86, *'91, *'96****ALDERMEN:**

Sam Chapin.

Lucius A. Derby, *'97, *'98.

Charles A. R. Dimon, *'79, *'98.

Oliver A. Libby, *'98.

Philip McNulty.

James F. Miskella, '95, '96, '97.

Edward B. Peirce, †'79, '80, †'83, '84, *'97, *'98.

George H. Taylor, '97, †'98.

Oliver D. Wilder, '97, '98.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL:**WARD 1.**

Herbert R. Baker.

Charles D. Paige, '98, President.

Francis E. Saunders.

WARD 2.

Patrick H. Barry, '91, '95.

Frank McMahon, '98.

John J. Mullaney.

WARD 3.

William H. Brown.

Chas. H. Flanders.

Burton H. Wiggin, '98.

WARD 4.

Timothy F. Donohoe.

Michael J. Markham, '98.

John J. Roark, '98.

WARD 5.

Frank S. Clark.

John F. Dillon.

John J. O'Brien.

WARD 6.

William E. Badger, '96.

George E. Burns.

James F. Walker.

WARD 7.

Philip Desmarais.

Lewis Lebrun.

Eben B. Stafford, '98.

WARD 8.

Fred E. Bean.

Ralph B. Lyman.

Anthony D. Mitten, '98.

WARD 9.

Henry Hatch.

Walter E. Murkland, '98.

William D. Whittet, '98.

FRANK M. DOWLING, Clerk.

1900.**MAYOR.**

JEREMIAH CROWLEY, '70, '71, *'73, *'74, *'77, *'78, *'84, *'86, *'91, *'96, †'99.

ALDERMEN.

William E. Badger, '96, '99.
Cyrus Barton.
John H. Beaulieu, '97, '98.
William H. Brown, '99.
James H. Carmichael, †'87.

Edward S. Howe.
Charles D. Paige, '98, †'99.
George H. Taylor, '97, †'98, *'99, Chairman.
William D. Whittet, '98, '99.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL.**WARD 1.**

Herbert R. Baker, '99.
James G. Hill.
Francis E. Saunders, '99.

WARD 2.

Patrick H. Barry, '91, '95, '99.
Bernard F. Lee.
John J. Mullaney, '99.

WARD 3.

Otto Jensen.
Ephraim D. Livingston.
George McElroy.

WARD 4.

James B. Casey.
Timothy F. Donohoe, '99.
Michael J. Markham, '98, '99.

WARD 5.

T. Frank Clark.
John F. Dillon, '99.
Thomas J. McCaffrey.

WARD 6.

Pierre A. Brousseau, '88, '89.
George E. Burns, '99.
James F. Walker, '99, President.

WARD 7.

Alfred J. Howe, '98.
Louis Lebrun, '99.
Eben B. Stafford, '98, '99.

WARD 8.

Fred E. Bean, '99.
Anthony D. Mitten, '98, '99.
Charles E. Tilton.

WARD 9.

George Emsley.
Henry Hatch, '99.
Daniel N. Pickering.

FRANK M. DOWLING, Clerk.

1901.**MAYOR.**

CHARLES A. R. DIMON, *'79, *'98, *'99.

ALDERMEN.

William E. Badger, '96, '99, *1900.
James H. Carmichael †'87, *1900.
Patrick Conlon, '87.
Philip Desmarais, '99.
Richard J. McCluskey.

James F. Miskella, '95, '96, '97, *'99, Chairman.
Joseph Mullin.
Gardner W. Pearson.
John J. Sullivan, '91, '92.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL.**WARD 1.**

Herbert R. Baker, '99, 1900.
James G. Hill, 1900. Elected Pres. July 2, 1901.
Mark D. Taylor.

WARD 2.

Peter Daley.
Patrick J. O'Rourke.
John H. Spillane. Died April 18.
John J. Pinder. Elected June 4.

WARD 3.

Otto Jensen, 1900.
Ephraim D. Livingston, 1900.
George McElroy, 1900.

WARD 4.

James B. Casey, 1900.
Timothy Donohoe, '99, 1900.
Michael J. Markham, '98, '99, 1900.

WARD 5.

T. Frank Clark, 1900.
Thomas J. McCaffrey, 1900.
George B. Roche.

WARD 6.

Pierre A. Brousseau, '82, '88, 1900, President.
Resigned July 2, 1901.
John A. Henderson.
Harry Swann.

WARD 7.

Louis Lebrun, '99, 1900.
Joseph A. Legare.
Albert S. Park.

WARD 8.

James P. Dugdale.
Albert F. Grant.
Charles E. Tilton, 1900.

WARD 9.

Charles H. Clough.

George Emsley, 1900.

Frank G. Lundberg.

FRANK M. DOWLING, Clerk.

1902.**MAYOR.**

CHARLES A. R. DIMON,*'79,*'88,*'99,†'01. (Died May 21, 1902.)
WILLIAM E. BADGER, (Acting Mayor.)

ALDERMEN.

William E. Badger,'96,'99,*'00,*'01, Chairman. Lucius A. Derby,*'97,*'98,*'99.
Cyrus Barton,*'00. Charles H. Molloy.
William H. Brown,'99,*'00. James O'Sullivan,'93.
George E. Burns,'99,'00. George F. Stiles.
James H. Carmichael,†'87,*'00,*'01.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL.**WARD 1.**

Cecil L. Adams.
James G. Hill,'00,'01, President.
Mark D. Taylor,'01.

WARD 2.

Frederick Cronan.
Peter Daley,'01.
John J. Pinder,'01.

WARD 3.

Asa B. Hilliard.
Thomas G. Little.
Charles H. Worcester.

WARD 4.

James B. Casey,'00,'01.
Timothy Donohoe,'99,'00,'01.
Patrick F. Welch.

WARD 5.

John F. Dillon,'99,'00.
Hugh Finnerty.
George B. Roche,'01

WARD 6.

John A. Henderson,'01.
Elie C. Laporte
Harry Swan,'01.

WARD 7.

Edmond P. Fontaine.
Joseph A. Legare,'01.
Albert S. Park,'01.

WARD 8.

William Fairweather
Albert F. Grant,'01.
Hamlet S. Greenwood.

WARD 9.

William G. Brown.

Daniel N. Pickering,'00.

John S. Palm.

FRANK M. DOWLING, Clerk.

1903.**MAYOR.**

CHARLES E. HOWE,*'95,*'96,*'97

ALDERMEN.

George E. Burns,'99,'00,*'02
James B. Casey,'00,'01.
Lucius A. Derby,*'97,*'98,*'99,*'02.
James J. Gallagher.
David Gerow.

James G. Hill,'00,'01,†'02.
Richard J. McCluskey,*'01.
James F. Miskella,'95,'96,'97,*'97,*'01, Chn.
Charles H. Molloy,*'02.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL.**WARD 1.**

Cecil L. Adams,'02, President.
James W. Barry.
James J. Hayes.

WARD 2.

Thomas J. Conners.
Frederick Gronan,'02.
John J. Pinder,'01,'02.

WARD 3.

Thomas H. Braden.
Asa B. Hilliard,'02.
Charles H. Worcester,'02.

WARD 4.

Dennis J. Cooney.
Timothy Donohoe,'99,'00,'01,'02.
Patrick F. Welch,'02.

WARD 5.

Hugh Finnerty,'02.
Frank A. McLaughlin.
George B. Roche,'01,'02.

WARD 6.

Frederick G. Baldwin.
Samuel Fleming.
C. Fred Hard.

WARD 7.

Edmond P. Fontaine,'02.
William J. Hayes
Andrew Livingston.

WARD 8.

William H. Dodge.
William Fairweather,'02.
Hamlet S. Greenwood,'02.

WARD 9.

William G. Brown,'02.

John W. Daly.

John S. Palm,'02.

FRANK M. DOWLING, Clerk.

1904**MAYOR.****CHARLES E. HOWE**, '95, '96, '97, '03.**ALDERMEN.**

James H. Carmichael, '87, '00, '01, '02. James G. Hill, '00, '01, '02, '03.
 William Fairweather, '02, '03. James F. Miskella, '95, '96, '97, '99, '01, '03
 James J. Gallagher, '03. [Chairman.
 David Gerow, '03. Albion C. Taylor.
 Albert F. Grant, '01, '02. William H. Wilson.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL.**

<p>WARD 1. James W. Barry, '03. James H. Fleming. James J. Hayes, '03.</p> <p>WARD 2. Thomas J. Connors, '03. Frederick Cronan, '02, '03. Michael J. Quinn.</p> <p>WARD 3. Thomas H. Braden, '03, President. Edmund J. Cheney. Charles H. Worcester, '02, '03.</p> <p>WARD 4. Daniel Cosgrove. John P. Mahoney. Patrick F. Welch, '02, '03.</p> <p>Burton H. Crosby.</p>	<p>WARD 5. John Donohue. Andrew McAloon. Frank A. McLaughlin, '03.</p> <p>WARD 6. Frederick G. Baldwin, '03. John H. Blake. Samuel Fleming, '03.</p> <p>WARD 7. William J. Hayes, '03. Charles H. May. William G. McIntyre.</p> <p>WARD 8. William H. Dodge, '03. Solomon S. Mayberry. George W. Peterson.</p> <p>WARD 9. Charles W. Stott. FRANK M. DOWLING, Clerk.</p>	<p>WARD 5.</p> <p>WARD 6.</p> <p>WARD 7.</p> <p>WARD 8.</p> <p>John S. Palm, '02, '03.</p>
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1905**MAYOR.****JAMES B. CASEY**, '00, '01, '02, '03.**ALDERMEN.**

Otis Allen.
 Thomas H. Braden, '03, '04.
 James H. Carmichael, '87, '00, '01, '02, '04. Albert F. Grant, '01, '02, '04 (Chairman.)
 Daniel Cosgrove, '04. William J. Hayes, '03, '04.
 William Fairweather, '02, '03, '04. Fred H. Rourke, '93, '94.
 James F. Walker, '99, '00.

GIRARD P. DADMAN, City Clerk.**COMMON COUNCIL.**

<p>WARD 1. James H. Fleming, '04. James J. Hayes, '03, '04. Charles F. Morse.</p> <p>WARD 2. Frederick Cronan, '02, '03, '04. Jeremiah A. Daly. Frank McMahon.</p> <p>WARD 3. Edmund J. Cheney, '04. Harry H. J. Read. Wesley M. Wilder.</p> <p>WARD 4. Henry F. Carr. Dennis J. Donohue. John P. Mahoney, '04.</p> <p>Charles H. Clough, '01</p>	<p>WARD 5. John Donohue, '04. Andrew McAloon, '04. Edward F. Shea.</p> <p>WARD 6. Frederick G. Baldwin, '03, '04. John H. Blake, '04. Norman W. White.</p> <p>WARD 7. J. Omer Allard. Leon Marcotte. William G. McIntyre, '04.</p> <p>WARD 8. William H. Dodge, '03, '04, President. Charles N. Leach. Solomon S. Mayberry, '04.</p> <p>WARD 9. John W. Daly, '03 FRANK M. DOWLING, Clerk.</p>	<p>WARD 5.</p> <p>WARD 6.</p> <p>WARD 7.</p> <p>WARD 8.</p> <p>Burton H. Crosby, '04.</p>
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1906**MAYOR.**

JAMES B. CASEY, '00, '01, '02, '03, †'05.

ALDERMEN.

Otis Allen, '05.
 William H. Brown, '99, '00, '02
 Daniel Cosgrove, '04, '05.
 Burton H. Crosby, '04, '05
 John W. Daly, '03, '05.

William H. Dodge '03, '04, †'05.
 William J. Hayes, '03, '04, '05.
 Andrew Livingston, '03.
 James F. Walker, '99, †'00, '05 (Chairman).

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL.**WARD 1.**

Frank R. Bailey.
 Alfred H. Johnson
 John F. McNamara.

WARD 2.

John J. Connors.
 Maurice F. Flynn.
 Murthey Lyons.

WARD 3.

Edmund J. Cheney, '04, '05.
 Harry H. J. Read, '05, President.
 Wesley M. Wilder, '05.

WARD 4.

Henry F. Carr, '05.
 Dennis J. Donohue, '05.
 John P. Mahoney, '04, '05.

WARD 5.

Jeremiah F. Connors.
 William E. Curtin.
 Joseph H. Mellen.

WARD 6.

John H. Blake, '04, '05.
 Edwin M. Kittredge
 James H. Leighton.

WARD 7.

J. Omer Allard, '05.
 Leon Marcotte, '05.
 William G. McIntyre, '04, '05.

WARD 8.

Charles N. Leach, '05.
 George H. Moody
 George W. Peterson.

WARD 9.

Charles H. Clough, '01, '05.

Frederick A. Evans.

Daniel E. Hogan.

FRANK M. DOWLING, Clerk.

1907**MAYOR.**

FREDERICK W. FARNHAM.

ALDERMEN.

James W. Barry, '03, '04.
 Alphonse Bibeault.

William H. Brown, '99, '00, '02, '06,
 (Chairman.)

Daniel Cosgrove, '04, '05, '06.

Burton H. Crosby, '04, '05, '06.

John W. Daly, '03, '05, '06.

Lucius A. Derby, '97, '98, '99, '02, '03.

Andrew Livingston, '03, '06.

Wesley M. Wilder, '05, '06.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL.**WARD 1.**

Frank R. Bailey, '06.
 Edwin M. Kittredge, '06
 James H. Leighton, '06, President.

WARD 2.

John A. Cotter.
 Michae H. Hoar.
 Murthey Lyons, '06.

WARD 3.

Smith J. Adams
 Royal K. Dexter.
 George E. Marchand

WARD 4.

Thomas J. Foudy
 John P. Mahoney, '04, '05, '06.
 John J. O'Neil.

WARD 5.

Jeremiah F. Connors, '06.
 William E. Curtin, '06.
 James J. Flanagan.

WARD 6.

Albert Bergeron.
 Wilbrod Bouthillette.
 Wilfred Cadoret.

WARD 7.

John B. Boudreau.
 John Thomas.
 John W. Wainwright.

WARD 8.

George B. McKidder
 Alexander D. Mitchell.
 George H. Moody, '06.

WARD 9.

Murdock McKinnon.

Craven Midgley.

Tyler A. Stevens

FRANK M. DOWLING, Clerk.

1908**MAYOR**

FREDERICK W. FARNHAM, '†07.

ALDERMEN

Frank R. Bailey, '06, '07.
Owen E. Brennan.
Peter H. Butterworth.
Frank W. Cheney.

Charles P. Comerford.
Arthur L. Gray.
James T. O'Hearn.
Harry H. J. Read, '05, '†06 (Chairman).
Wesley M. Wilder, '05, '06, *'07.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL**WARD 1**

Frederick G. Baldwin, '03, '04, '05.
John A. McKenzie.
Stanley E. Qua.

WARD 2

John A. Cotter, '07.
John E. Kearns.
Murthey Lyons, '06, '07.

WARD 3

Smith J. Adams, '07.
Royal K. Dexter, '07.
George E. Marchand, '07.

WARD 4

Dennis J. Donohoe, '05, '06.
Thomas J. Foudy, '07.
John P. Mahoney, '04, '05, '06, '07.

WARD 5

James A. Donohoe.
James J. Flanagan, '07.
Frederick J. Welch.

WARD 6

Albert Bergeron, '07.
Wilfred Cadoret, '07.
Joseph H. Jodoin, Jr.

WARD 7

John B. Boudreau, '07.
John Thomas, '07.
John W. Wainwright, '07.

WARD 8

George B. McKidder, '07.
Alexander D. Mitchell, '07.
Charles A. Spencer.

WARD 9

Joseph Fielding. Tyler A. Stevens, '07 (President). Thomas E. Wilde.
FRANK M. DOWLING, Clerk.

1909**MAYOR**

GEORGE H. BROWN

ALDERMEN

Smith J. Adams, '07, '08.
William E. Badger, '96, '99, *'00, *'01, *'02.
Frank W. Cheney.
Jeremiah F. Connors, '06, '07.

Royal K. Dexter, '07, '08.
Arthur L. Gray, '08 (Chairman.)
Tyler A. Stevens, '07, '†08.
John D. Turner.
John W. Wainwright, '07, '08.

GIRARD P. DADMAN, City Clerk.

COMMON COUNCIL**WARD 1**

Otis W. Butler.
John A. McKenzie, '08.
Stanley E. Qua, '08 (President).

WARD 2

John J. Brady.
John F. Gookin.
John E. Kearns, '08.

WARD 3

Victor F. Jewett.
Edwin W. Killpatrick.
George R. Myers.

WARD 4

Charles F. Donahoe.
John P. Mahoney, '04, '05, '06, '07, '08.
Edward J. Tarrant.

WARD 5

James J. Flannagan, '07, '08.
Bernard J. Tracey.
Frederick J. Welch, '08.

WARD 6

Henry Achin, Jr.
Joseph H. Jodoin, Jr., '08.
Felix H. Vigeant.

WARD 7

John B. Boudreau, '07, '08.
Arthur Genest.
Alfred T. Howe.

WARD 8

George L. Dow.
Orrin B. Ranlett, 2d.
Charles A. Spencer.

WARD 9

John P. Davis. Harry H. Whittet Thomas E. Wilde, '08.
FRANK M. DOWLING, Clerk.

EIGHTY-FOURTH ANNUAL REPORT
OF THE
School Committee
OF THE
CITY OF LOWELL, MASS.
AND THE
FORTY-SIXTH ANNUAL REPORT
OF THE
Superintendent of Public Schools
1909



BUTTERFIELD PRINTING COMPANY
LOWELL, MASS.
1910

CITY OF LOWELL

Office of the School Committee,

Lowell, Mass., December 28, 1909.

At a meeting of the School Committee, held December 28, 1909, it was voted to adopt the report of the Superintendent of Schools for 1909 as the Report of the School Committee for that year, and to authorize the printing of the report.

In accordance with this vote the report is herewith submitted.

ARTHUR K. WHITCOMB,

Secretary.

ORGANIZATION

OF THE

School Committee

1909

J. ELZEAR LAMOUREUX, M. D., President.
ARTHUR K. WHITCOMB, Secretary.

Ward 1—	EDWARD T. GOWARD, 274 Appleton St.	Term expires	1909
“ 2—	THOMAS MAHONEY, Jr., 139 Colburn St.	“ “	1909
“ 3—	EDMUND T. SIMPSON, 393 Wilder St.	“ “	1910
“ 4—	ARTHUR M. KANE, 37 Elm St.	“ “	1909
“ 5—	EUGENE F. TOOMEY, 168 Lawrence St.	“ “	1910
“ 6—	J. ELZEAR LAMOUREUX, M. D., 710 Mer'k	“ “	1910
“ 7—	ANDREW G. SWAPP, 307 Pawtucket St.	“ “	1909
“ 8—	FRANKLIN E. JOHNSON, 417 Mid'sex St.	“ “	1910
“ 9—	CRAVEN MIDGLEY, 169 Meadowcroft St.	“ “	1909

STANDING COMMITTEES.

- On Teachers and Salaries**—Messrs. Swapp, Midgley, Toomey.
- On Books and Supplies**—Messrs. Lamoureux, Johnson, Simpson, Mahoney, Kane.
- On Evening Schools**—Messrs. Simpson, Swapp, Lamoureux, Johnson, Mahoney.
- On High School**—Messrs. Johnson, Lamoureux, Simpson, Toomey, Kane.
- On Evening Drawing Schools**—Messrs. Midgley, Goward, Kane.
- On Music**—Messrs. Simpson, Swapp, Mahoney.
- On Janitors**—Messrs. Midgley, Goward, Toomey.
- On Accounts**—Messrs. Goward, Midgley, Mahoney.
- On School Houses and Hygiene**—Messrs. Lamoureux, Johnson, Toomey.
- On Rules**—Messrs. Goward, Swapp, Kane.

ASSIGNMENT OF SCHOOLS.

- Mr. Goward, Ward 1**—Varnum, Kirk, Eliot, Tenth, Billings; Varnum Kindergarten.
- Mr. Mahoney, Ward 2**—Green, Worthen, Morrill.
- Mr. Simpson, Ward 3**—High, Lincoln, Franklin, Howard, Powell, Dover, Grand, Laura E. Lee; Dover, Lincoln, Franklin and Laura E. Lee Kindergartens.
- Mr. Kane, Ward 4**—High, Butler, London, Weed, Agawam, Carter, Lyon; Agawam and Chapel Kindergartens.
- Mr. Toomey, Ward 5**—High, Edson, Training, Charles, Central, Ames, Cottage; Charles street Kindergarten.
- Dr. Lamoureux, Ward 6**—High, Greenhalge, West Sixth, Lakeview, Cabot, Cheever.
- Mr. Swapp, Ward 7**—Bartlett, Pawtucket, Training, Cross, New Moody, Lexington avenue; Pawtucket and Bartlett Kindergartens.
- Mr. Johnson, Ward 8**—High, Highland, Pine, Middlesex Village; Pine street Kindergarten.
- Mr. Midgley, Ward 9**—Moody, Training, Riverside, Pond, High St., Sycamore; Moody Kindergarten.

ASSIGNMENT OF EVENING SCHOOLS.

Mr. Simpson—High, Edson, Howard.

Mr. Swapp—Bartlett, Green, Cheever.

Dr. Lamoureux—Varnum, Greenhalge, Old Moody, Colburn.

Mr. Johnson—Mann, Worthen.

Mr. Mahoney—Butler, Franklin, Riverside.

ARTHUR K. WHITCOMB, Superintendent of Public Schools.

Office in City Hall.

Office Hours—One hour after the forenoon session of schools and from 2 to 3 o'clock on Saturday afternoon. Telephone 2728.

HENRY L. WILLIAMS, School Supply Agent.

Office in School Supply Room, City Hall.

Hours, 8 a. m. to 12.30 p. m., and 1 to 5 p. m. Telephone 2727.

WM. F. THORNTON, Supervisor of Janitors.

Office in City Hall. Hours, 12 m. to 1 p. m. Home telephone 1046-5.

TRUANT COMMISSIONERS.

WM. F. THORNTON,

CAMILLE ROUSSIN, HENRY L. WILLIAMS.

Office in City Hall, Third Floor.

Office Hours—12 m. to 1 p. m. for all the working days of the year.

REGULAR MEETINGS OF THE SCHOOL COMMITTEE

January 26	February 23	March 30	April 27
May 25	June 29	July 27	August 31
September 28	October 26	November 30	December 28

ORGANIZATION

OF THE

School Committee

1910

J. ELZEAR LAMOUREUX, M. D., President.

ARTHUR K. WHITCOMB, Secretary.

Ward 1—	EDWARD T. GOWARD, 274 Appleton St.	Term expires	1911
“ 2—	THOMAS MAHONEY, Jr., 139 Colburn St.	“ “	1911
“ 3—	EDMUND T. SIMPSON, 393 Wilder St.	“ “	1910
“ 4—	JOHN H. PYNE, 823 Central St.	“ “	1911
“ 5—	EUGENE F. TOOMEY, 168 Lawrence St.	“ “	1910
“ 6—	J. ELZEAR LAMOUREUX, M. D., 710 Mer'k	“ “	1910
“ 7—	JOHN H. LAMBERT, M. D., 70 Wannalancit	“ “	1911
“ 8—	FRANKLIN E. JOHNSON, 417 Mid'sex St.	“ “	1910
“ 9—	CRAVEN MIDGLEY, 169 Meadowcroft St.	“ “	1911

STANDING COMMITTEES.

On Teachers—Messrs. Lamoureux, Midgley, Toomey.

On Finance—Messrs. Midgley, Simpson, Pyne.

On Books and Supplies—Messrs. Goward, Johnson, Lambert, Mahoney, Pyne.

On Evening Schools—Messrs. Simpson, Lamoureux, Johnson, Lambert, Toomey.

On High School—Messrs. Johnson, Goward, Simpson, Toomey, Pyne.

On School Houses and Hygiene—Messrs. Lambert, Midgley, Mahoney.

On Rules—Messrs. Goward, Lamoureux, Mahoney.

ASSIGNMENT OF SCHOOLS.

Mr. Goward, Ward 1—High, Varnum, Kirk, Eliot, Tenth, Billings; Varnum Kindergarten.

Mr. Mahoney, Ward 2—Green, Worthen, Morrill.

Mr. Simpson, Ward 3—High, Lincoln, Franklin, Howard, Powell, Dover, Grand, Laura E. Lee; Dover, Lincoln, Franklin and Laura E. Lee Kindergartens.

Mr. Pyne, Ward 4—High, Butler, London, Weed, Agawam, Carter, Lyon; Agawam and Chapel Kindergartens.

Mr. Toomey, Ward 5—High, Edson, Training, Charles, Central, Ames, Cottage; Charles street Kindergarten.

Dr. Lamoureux, Ward 6—Training, Greenhalge, West Sixth, Lakeview, Cabot, Cheever.

Dr. Lambert, Ward 7—Bartlett, Pawtucket, Cross, New Moody, Lexington; Pawtucket and Bartlett Kindergartens.

Mr. Johnson, Ward 8—High, Highland, Washington, Franklin, Pine, Middlesex Village; Pine street Kindergarten.

Mr. Midgley, Ward 9—Moody, Training, Riverside, Pond, High street, Sycamore; Moody Kindergarten.

ASSIGNMENT OF EVENING SCHOOLS.

Mr. Simpson—High, Drawing.

Dr. Lambert—Bartlett, Green, Cheever.

Dr. Lamoureux—Greenhalge, Old Moody, Colburn, Middlesex Village.

Mr. Johnson—Mann, Worthen.

Mr. Toomey—Edson, Butler, Franklin, Riverside.

ARTHUR K. WHITCOMB, Superintendent of Public Schools.

Office in City Hall.

Office Hours—One hour after the forenoon session of schools and from 10 to 12 o'clock on Saturday forenoon. Telephone 2728.

HENRY L. WILLIAMS, School Supply Agent.

Office in School Supply Room, City Hall.

Hours—8 a. m. to 12.30 p. m., and 1 to 5 p. m. Telephone 2727.

WM. F. THORNTON, Supervisor of Janitors.

Office, City Hall, Third Floor.

Office Hours—12 m. to 1 p. m. Home Telephone 1046-5.

TRUANT COMMISSIONERS.

WM. F. THORNTON,

CAMILLE ROUSSIN, HENRY L. WILLIAMS,

JOHN J. WALKER.

Office in City Hall, Third Floor.

Office Hours—12 m. to 1 p. m. for all the working days of the year.

REGULAR MEETINGS OF THE SCHOOL COMMITTEE

January 25	February 23	March 29	April 26
May 31	June 28	July 26	August 30
September 27	October 25	November 29	December 27

REPORT OF THE Superintendent of Schools

Office of the Superintendent of Schools,

December 31, 1909.

Gentlemen of the School Committee:

In accordance with your rules, I have the honor to submit the following as my report for the year 1909:

SUMMARY OF STATISTICS.

Value of real and personal property		\$79,176,837
Value of school houses and lots		1,180,100
Population by census of 1905		94,845
Number of polls		26,460
Increase for the year		1,342
Number of children between five and fifteen years of age, September 1, 1909.....		14,740
Ward One, 943	Ward Six, 3253	
" Two, 1695	" Seven, 1511	
" Three, 1357	" Eight, 1248	
" Four, 1622	" Nine 1715	
" Five, 1396		
Increase in the year		146
Number between 7 and 14 (compulsory school age)		10,800

Number of public schools	63
One High, twelve Grammar, thirty-five Primary, two Mixed, one Training, twelve Kindergarten.	
Number of public school buildings	59
Occupied by day schools, 53; used for evening schools, 3; unoccupied, 3.	
Number of school rooms in actual use	304
High, 34; Grammar, 129; Primary, 124; Mixed, 4; Kindergarten, 13.	
Elected teachers Dec. 31, 323; on leave, 6; in service	317
Teachers in service Dec. 31, including clerk at H. S.....	348
Elected, 317; appointed, 16; practice class, 14; clerk at High School, 1.	
Subdivisions of Elected Teachers:	
High, 37, 12 men, 25 women; Grammar, 129, 11 men, 118 women; Primary, 116 women; Training, 8 women; Mixed, 4 women; Kindergarten, 23 women; Drawing, 2 women; Music, 2, 1 man, 1 woman; Kindergarten supervisor, 1 woman; Sewing, 1 woman.	
Teachers in Evening Schools, term of 1908-9	169
High, 30; Elementary, 123; Drawing, 16	
Pupils enrolled in Evening Schools, term of 1908-9	3902
High, 1022; Elementary, 2528; Drawing, 352.	
Whole number of pupils enrolled in Day Schools	13,424
High, 1214; Grammar, 5841; Primary, 5538; Mixed, 114, Kindergarten, 717.	
Average number belonging to Day Schools	11,476
High, 1141; Grammar, 5245; Primary, 4564; Mixed, 91; Kindergarten, 435.	
Average attendance	10,539
High, 1089; Grammar, 4869; Primary, 4154; Mixed, 82; Kindergarten, 345.	

Average number belonging to each teacher	35
High, 34; Grammar, 37; Primary, 37; Mixed, 23; Kindergarten, 18.	
Average belonging to each room	38
High, 34; Grammar, 41; Primary, 37; Mixed, 23; Kindergarten, 33.	
Average per cent. of attendance	93
High, 95; Grammar, 93; Primary, 91; Mixed, 90; Kindergarten, 80.	
Average cost of each pupil, for tuition only, based on the average number belonging	\$22.23
High, \$35.95; Grammar, \$20.32; Primary, and Mixed, \$19.21; Training, \$22.66; Kindergarten, \$28.54.	
*Total cost per pupil for tuition, salaries of janitors, medical supervision, six-sevenths of supervision, supplies, fuel, and all incidentals, based on enrolment	\$26.10
Same based on average number belonging	\$30.53
Average cost per pupil in evening schools for teachers and janitors, based on average number belonging, \$8.09; in evening drawing schools, \$9.95; in evening schools, tuition, fuel, light, supplies and one-seventh of supervision included, \$9.66; evening drawing schools, fuel, light and supplies included, \$11.78.	
Day school expenses to total valuation, .45 per cent.	
Day school expenses to total expenditures of city, 17.5 per cent.	
Day and evening school expenses to total valuation, .49 per cent.	
Day and evening school expenses to total expenditures of city, 18.9 per cent.	

* Payments for the board of truants in the county training school are not included in average cost of pupils in school, such payments being no part of legitimate school expenditures.

RECEIPTS AND EXPENDITURES.

Receipts.

Appropriated and assessed in 1909 \$378,779.71

Expenditures.

Paid to teachers of day schools:—

High School \$ 41,015.51

Grammar Schools—Bartlett School	\$ 8,883.26	
Butler School	12,824.52	
Edson School	9,614.90	
Green School	9,949.90	
Greenhalge School	6,077.99	
Highland School	13,356.43	
A. Lincoln School	9,184.20	
Moody School	8,764.79	
Pawtucket School	6,416.26	
Riverside School	1,939.14	
Varnum School	11,572.35	
Washington School	1,223.02	
		99,806.76
Primary and Mixed Schools		85,929.93
Training School		11,668.98
Kindergartens		12,412.76
Special teachers		4,326.50
Total paid for instruction in day schools		255,160.44

School physicians and school visitor:—

Paid school physicians	\$1,440.00	
Paid school visitor	240.00	
		1,680.00

Janitors:—

Paid janitors of day schools	43,929.36
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Evening Schools:—

Teachers, High and Elementary Schools.....	\$15,364.25	
Teachers, Drawing and Art Schools.....	2,569.00	
Janitors	2,985.50	
		20,918.75

Cost of supervision:—

Superintendent of Schools	\$3,000.00	
Office Assistant	600.00	
Truant officers (four)	3,683.32	
Assistant in supply room	656.75	
		7,940.07

Total of Salaries	\$329,628.62
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Bills

Fuel (evening schools \$918)	\$19,412.07
Water (evening schools \$11)	1,004.09
Gas (evening schools \$781)	1,175.08
Electric lighting (evening schools \$600)	790.41
Electricity for power	2,019.40
Repairs by Supt. Public Buildings (eve. sch. \$50)	463.19
General repairs	674.05
Electrical repairs (evening schools \$42)	561.09
Text books (evening schools \$244)	6,614.84
Writing books, stationery, etc. (eve. sch. \$172)	5,190.38
Supplies for janitors (evening schools \$100)	1,731.20
Material for sewing	353.32
Supplies for kindergartens	363.29
Supplies and apparatus, H. S. laboratories	115.01
Manual training supplies, (eve. sch. \$14)	308.64
Manual training, new equipment	150.00
Bills of Middlesex County, board of truants	3,234.95
Printing, including annual report, (eve. sch. \$114) ..	1,438.01
Board of horses, care of carriages, etc. (eve. sch. \$6) ..	774.70
High School Regiment	272.65
Graduations (evening schools \$67)	620.45
Rent of room and land	266.00
Miscellaneous (evening schools \$21)	1,618.27
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Total of bills	\$ 49,151.09
Total expenditures	378,779.71

School House Repairs

Expenditures by Lands and Buildings Department	\$35,103.55
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New Washington School House

Balance of \$75,000 appropriation on hand Jan. 1, 1909	\$30,752.57
Additional appropriation in 1909	12,500.00
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Total credits	43,252.57
Expended in 1909	41,073.70
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Balance Dec. 31, 1909	\$ 2,178.87
Total cost of the George Washington school house, including \$2,200 for land	\$89,700.00

School Census and Attendance

The school census taken in September gave the names of 14,740 children between five and fifteen years of age, a gain of 146 over the number reported in 1908. This gain is small, yet it is more than the average in recent years. In 1899, ten years ago,

14,449 children were found by the census takers, a number less than that of the present year by only 291. In the same time the average number of children belonging to the public schools has increased from 10,110 to 11,476, a gain of 1376. This is not a large increase for so long a time, but its size is a surprise, and a matter of gratification as well, when made in the face of a much smaller gain in the stock from which the schools can draw. It indicates an attendance so general as to allow place for very few, if any, absentees. It is probable, too, that pupils are staying in school longer now than formerly, so that the ratio between the possible and the actual attendance is improved considerably by the presence of pupils who are older than the school census limit. A further proof of this is found in the fact that the increase has been greatest in the high school, from 814 to 1141, or over 40 per cent.

The number of pupils to the teacher has taken another downward step in the year, falling from 36 in 1908 to 35 in 1909. Ten years ago it was 37. Such reduction wins for us the applause of those who believe in small classes, but adds from \$12,000 to \$15,000 to the expenses of the schools. So far as I know parents and teachers all approve the reduction, and we will hope that the increased cost is compensated for by increased efficiency.

Receipts and Expenditures

The total expenses of the school department in 1909 were \$378,779.71, a sum less by \$2,930 than in 1908, and less by \$5,517 than in 1907. The decrease

has been wholly in cost of supplies, salaries having shown a small increase each year. The income of the department, wholly from tuitions, was \$6,382. This does not benefit the department, but is turned into the general treasury fund.

Estimates of the year's expenses, prepared for the committee on appropriations of the city council, were printed in the report for 1908. The estimate on salaries was, in fact, a statement of a condition rather than an estimate, for the sum proposed was the exact total of the salaries of the teachers, janitors and other employees of the school department who were actually in service at the beginning of the year. The estimate provided for no increase whatever either in salary or in number of employees, and while the working force remained the same, and at the same salary, expenses could not be less or more than the estimate by one cent. Teachers draw half pay for twenty days when absent on account of sickness and for five days when absent on account of the sickness or death of a near relative, but the lessening of their pay in these periods is more than offset by the pay of their substitutes, so that the city suffers a money loss for every day of such absence. After twenty days, however, or when changes occur, the pay of the new teacher is usually a little less than the amount previously paid, and the city is then the gainer so far as cash expense is concerned. Experience has shown that the gains and the losses from these causes just about balance each other, so that an estimate of expenses based on present salaries is a fairly safe one provided there is no change in force or salary. When a janitor is

absent his pay stops but his substitute is paid the same amount, so that the salary expense remains without change. The estimate for salaries in 1909 was a little greater than for 1908, and the result proved the accuracy of the forecast. Salaries for 1908 were \$328,059.71; in 1909 they were \$329,628.62, an increase of \$1,568.91 which is more than accounted for by the \$1,680 paid to the school physicians and their helper.

Supplies and repairs cost less in 1909 than in 1908 by \$4,439, a result reflecting great credit upon the whole membership of the school committee, and especially upon the finance committee, the chairman of the supply committee, Dr. Lamoureux, and the supply agent, Mr. Williams. The largest gains were in fuel and water, repairs, and text books. Teachers in all the schools assisted in bringing about the reduction, as the following tables will show:

Text Books and Supplies

	Cost 1909	Pupils 1909	Average 1909	Average 6 Years
High School	\$4,247.41	1141	3.72	4.01
Grammar Schools				
Bartlett	\$785.59	446	1.76	1.68
Butler	818.74	666	1.23	1.39
Edson	433.23	496	.87	1.17
Green	427.98	480	.89	1.41
Greenhalge	206.90	279	.74	
Highland	220.35	712	.31	1.32
Lincoln	686.56	465	1.48	1.48
Moody	340.72	443	.77	1.05
Pawtucket	301.40	271	1.11	1.21
Riverside	98.08	97	1.01	
Training	697.62	333	2.09	1.84
Varnum	685.91	557	1.23	1.13
Washington	809.53	164	4.94	
Totals	6512.61	5245	1.24	1.41

Primary Schools

Agawam	\$43.57	119	.37	.38
Ames	26.97	102	.26	.35
Bartlett		217		
Billings	68.32	119	.57	.49
Cabot	20.78	90	.23	.49
Central	49.69	137	.37	.41
Charles	88.08	172	.51	.48
Cheever	66.18	118	.56	.52
Cottage	50.12	114	.44	.42
Carter	78.51	184	.42	.42
Cross	34.36	87	.39	.59
Dover	39.66	108	.37	.46
Eliot	54.31	152	.36	.32
Franklin	59.19	127	.47	.44
Greenhalge		109		
High Street	33.65	93	.36	.42
Howard	107.16	145	.74	.52
Kirk	37.22	62	.60	.43
Lakeview	79.11	182	.43	.55
Lexington	5.79	23	.25	.64
London	69.12	128	.54	.57
Lyon	56.98	179	.32	.54
Lincoln	24.08	86	.28	.33
Morrill	60.42	91	.66	.54
Middlesex	35.74	68	.53	.75
Moody Street	44.25	231	.19	.30
Oaklands	30.23	63	.48	.51
Pine	39.31	93	.42	.49
Pond	30.63	108	.28	.30
Powell	44.01	72	.61	.70
Laura Lee	111.73	198	.56	.35
Riverside	20.00	114	.18	
Tenth	57.46	190	.30	.30
Training		182		
Weed	84.72	107	.79	.56
West Sixth	64.90	150	.43	.44
Worthen	38.13	135	.28	.46
Totals	1754.38	4655	.38	.45
Kindergartens	363.29	435	.84	.93
Totals for all schools	12,506.48	11,476	1.09	1.22

In high school expenses as given in the foregoing table are included \$150 for a new lathe for the manual training department, and \$256 for printing, as well as the cost of all supplies for laboratories, manual training, etc. The cost of text books alone in the high school was but \$1898.48, or \$1.65 per pupil.

The Washington school was organized in September, and the supply account is for but four months. When the Greenhalge school was organized from the Varnum its pupils took a part of their books from the old school to the new, thus decreasing somewhat the demand of the latter for new books, but the pupils who went from the Highland to the Washington took no books or other supplies with them. Their entire equipment is, therefore, new, and despite the earnest efforts of the master and all his teachers its cost has been more than had been anticipated. As at least one new room will be organized there each year for the next two years the cost per pupil will probably be somewhat above the average for that length of time. It will be noted that the large expense at the Washington has been compensated for in large part by a decreased expenditure at the Highland where the expense per pupil for books and supplies in 1909 was but 31 cents, less than half the rate of any other grammar school.

In final averages the Moody and the Varnum continue to lead the grammar schools in economy of expenditures for books and supplies, and the Tenth, Pond and New Moody do the same with the primaries, none of them with any apparent lack of things needful for the best work.

A record of the cost of books and supplies has now been kept with separate schools for six years, and the averages obtained ought to afford a fair basis on which to plan in the future. In that time the high school has averaged \$4 per pupil, the grammar schools \$1.41, the primaries \$.45, and the kindergar-

tens \$.93. In the high school renewal of equipment may cause large variations at times. In 1910, for instance, at least \$500 should be expended on typewriters, and the manual training department is insistently demanding a new milling machine at a cost of \$800 or more. Such additions, if made, may carry expenses much above the average. A change of text books may do the same in the grammar schools, but under normal conditions I think that masters and principals should feel in duty bound to keep the expenses of their school at or below the average of the other schools of their grade, as just given.

Estimates of expenses in 1910 have been prepared for the committee on appropriations as required by ordinance. As in 1909, the estimate for salaries is the exact sum of the salaries of the teachers and other employees in service January 1, 1910, and the estimate for supplies is made up from known needs carefully compared with expenditures in 1909 and with average expenses for the four preceding years. The estimate is slightly larger than the actual expenses of 1909, but is a little less than the average of the preceding four years.

Following is a summary of the estimates with number of persons employed, comparisons, etc.:

I. SALARIES :—

	Number	Salaries
Teachers in day schools	347	\$257,927
Janitors for day schools	56	44,520
Teachers in evening schools	139	15,980
Janitors for evening schools	25	3,000
School physicians and helper	10	2,400
Superintendent, truant officers, clerk, etc.	7	8,554
Totals of employees and of salaries	584	332,381

2. SUPPLIES :—

	Average 1905-6-7-8	Cost 1909	Estimate 1910
Coal, gas, water, electricity for lighting	\$25,523	\$22,381.65	\$24,300
Electricity for power.....	1,843	2,019.40	2,500
Text books, writing books, stationery, etc.....	12,943	11,805.22	13,400
Supplies for H. S. laboratories, manual training, sewing, kindergartens, janitors, H. S. Regiment.....	3,290	3,294.11	3,650
Repairs, new equipment, rents, etc.....	4,698	2,090.83	3,831
Board of truants at county school.....	3,453	3,234.95	3,500
Printing, graduations, etc.....	2,058	2,058.46	2,150
All else	2,065	2,266.47	2,288
Totals for supplies	\$55,873	\$49,151.09	\$ 55,619
Total for both salaries and supplies.....			388,000

A considerable surplus of coal left over from the winter of 1908-9 enabled the school department to get on with less purchases than usual in the summer. Similar conditions cannot be counted on for 1910, a fact which justifies an estimate for that year somewhat larger than the expenses of 1909. Water bills for the last quarter in the year came to hand so late that they went over to 1910. In that year payment will have to be made for five quarters in contrast with three in 1909. The Washington school, too, will add its mite to this account. Its water bill for the first quarter was \$86, about ten times as much as the average for the same number of rooms elsewhere. In electricity for power the increase of estimate over expenditure is also due to the new school. When opened in September the ventilating apparatus had not been installed, but a motor driven fan was in place by December 1, and the bill for electricity to drive it from that date to December 20 was \$36. At that rate \$500 is a moderate estimate of the cost for a year.

Expense for new equipment is increased by the need of many new typewriters. The evening high

school registered 204 applicants for places in typewriting classes. The school has but 33 machines and the need of more is manifest. The machine room of the manual training department is in great need of a milling machine to cost \$800 or more. The master of the Washington school now uses a hand bell to summon pupils and asks for electric gongs such as have been supplied to others. The school also needs blackboards in front of pupils in those rooms where those now in use, or disuse, are behind the pupils or at their sides. These and many other similar items are believed to account fully for any increase of estimate over expenditures. It is hoped that the appropriation will be made as asked, but whether it is or not the department stands pledged to the greatest possible economy which is permitted by a reasonable regard for the schools.

School Houses

School houses in Lowell are not erected by the school committee, as is the case in most cities, but by the city council. When the school committee thinks that a new school house is needed it asks the city council to build one. The council, though, is under no obligation to wait for a request before supplying a public need, nor is it under any compulsion to grant a request when made. With the selection of sites, the choice of plans, the determination of methods of heating and ventilating, and with other similar details, the committee has nothing to do. It is true that on one or two occasions the courtesy of an opportunity to

look at plans has been extended to the school committee, but no practical result has followed, the plan adopted not being the one approved by the committee. This explanation is offered because a large part of the public seems to hold the committee responsible for the school houses as well as for the schools.

One new house begun in 1908 has been so far finished as to permit joint occupancy by school children and by workmen since September, 1909. It is situated at the junction of South Walker and Avery streets, and has been named the George Washington. It has ten rooms with seats and desks for pupils, a hall, and the usual multiplicity of small rooms of no known name or use. For its construction two appropriations were made, one of \$75,000 in 1908 and a second of \$12,500 in 1909, so that the total cost will be \$87,500, exclusive of the land on which it stands.

Two small houses which were intended for temporary use have been dismantled and sold. These were the four room building which has stood in the yard of the Highland school since 1904, and the two room building which was provided in 1901 to care for an overflow from the Lakeview avenue school. This latter building has been standing unused in the yard of the Greenhalge school since 1906. For the building in the Highland yard I saw no probability of further use. In Centralville, however, both the Greenhalge and the Lakeview avenue houses are crowded, and I anticipate the need of further school accommodations in that section before long. The old building, though, had become so dilapidated that it would

cost nearly as much to repair it as to build a new one, and I, therefore, consented to a sale.

As these buildings have outlived their usefulness and have been retired, it may be of interest, perhaps, to say that both served their purpose well while needed. The two room building cost \$1500 and the four room building \$2700. They were far from handsome architecturally, but they were easy to warm, well equipped, and altogether made very satisfactory quarters for large classes of pupils for several years.

The need of more new buildings is the same as noted in previous reports. The poorest house in the city, and the one which most needs replacing, is the one on Grand street. The need of the section in which it stands is for a house of at least eight rooms to take the place of the Grand street and Howard street houses and to afford quarters for the two primary classes which are now in the Lincoln school building. The need of such a house is real, though less than last year on account of the relief afforded the Lincoln by the opening of the Washington. The Lincoln is still so full that the kindergarten is forced to remain in its end of the corridor room on the second floor, but the room in the assembly hall has been closed.

The school buildings of the city are generally in good condition, a fact for which hearty thanks are due the very efficient inspector of buildings, Mr. Dow, who has made an exceptionally small appropriation go a very long way in repairing and refitting school houses.

Schools and Teachers

The principal change in schools during the year was the opening of the Washington school in September, and the transfer to it of the pupils of four rooms from the Highland and one from the Lincoln. Although five rooms were closed, it was found necessary to open but four at the Washington, and, as one of these is taught by the principal, only three women teachers were transferred, all from the Highland. No pupils above the seventh grade were transferred, and no class will graduate to the high school until 1912. Mr. J. E. Barr, a graduate of the Normal school at Lowell in 1901 and of Bates College in 1905 was elected principal in July. Mr. Barr had taught in several places in Maine and New Hampshire with notable success before graduating from college, and since that time he has been teaching in the Lowell high school. In the latter school he taught English to first year pupils, an ideal preparation for the work of a grammar master, and his success at the Washington has well justified his election.

At the high school annex two new school rooms have been made out of a combination of cloak rooms and corridors, and one new teacher has been employed.

The Riverside school has been changed only by the transfer to it of a principal, Mrs. Harriet L. Wheeler of the Training school, but this transfer has meant so much to the school as to make it worthy of mention. Mrs. Wheeler is a teacher of ability and experience whose fine work is already showing excellent results.

Vacancies at the Pawtucket and Green schools, caused by a resignation from the first and a leave of absence from the second, have not been filled, thus reducing the teaching force by two, and the closing of the assembly hall room at the Lincoln makes a further reduction of one. In primary schools there has been an increase of two in teaching force, both as assistants in crowded rooms, one at Lakeview avenue and the other at London street. The kindergarten corps has been increased by the election of an assistant at the Moody.

Following are the changes in the roll:

DIED

	Term of Service
Mercena F. Whitehorn, of the Moody	32 years
Nellie A. Hunt, of the Lyon street	25 years
Agnes M. Foley, of the Butler	22 years

RESIGNED

Nellie M. Brown	44 years
Susan G. Neilon	14 years
Mary E. Thomas	7 years
Julia M. Healey	39 years
Mary E. O'Connor	13 years
Mirion H. Milner	7 years
Ellen F. Cull	1 year

TRANSFERRED

Mabel A. Metcalf, from the High to the Tenth street school.
 Jennie E. Rogers, from the Highland to the Edson school.
 Bertha M. Rowlandson, from the Edson to the Moody school.
 Harriet L. Wheeler, from the Training to the Riverside Grammar.
 Helen A. Dow, from the Highland to the Washington school.
 Esther M. Greene, from the Highland to the Washington school.
 Susan C. Griffin, from the Highland to the Washington school.
 Mary G. Quinn, from the Morrill to the Butler school.
 Mary I. Halloran, from the Eliot to the High street school.

ELECTED

George I. Cross, to the High school.
 Mabel H. Hall, to the High school.
 Lillian E. Edgerly, to the High school.
 Gertrude B. Crowley, to the Moody Kindergarten.

Of the teachers taken from the schools by death Miss Whitehorn was one who made so good a record as a primary teacher that she was drafted, against her preference, to be a master's assistant a score of years ago. She has always been counted one of the strongest teachers in the city. Miss Hunt was one of the teachers who are born, not made, and her love for her pupils and her exceptional tact in managing them enabled her to secure very superior results. Miss Foley was a faithful and conscientious teacher, a little younger than the others, yet old enough to have given twenty-two years of service to the city.

Of those who resigned, Miss O'Connor and Miss Milner did so to accept better positions elsewhere; Miss Cull, Miss Thomas and Miss Neilon did so to marry, and Miss Brown and Miss Healey to enjoy a well earned rest. All were strong teachers whose retirement is a loss to the schools, and they are followed by the best wishes of all who were associated with them.

Pupils by Grades

The number of pupils in the schools in December, arranged by grades or years is as follows:

	Males	Females	Total	Per Cent Decrease		Males	Females	Total	Per Cent Decrease
Kind'tens	213	220	433		Grade 7,	386	405	791	17
Grade I,	994	977	1971		" 8,	299	303	602	24
" 2,	774	748	1522	23	" 9,	255	289	544	10
" 3,	658	561	1219	20	" 10,	168	200	368	32
" 4,	618	606	1224	0	" 11,	162	171	333	9
" 5,	511	540	1051	14	" 12,	115	141	256	23
" 6,	480	474	954	9	" 13,	88	111	199	23
Totals						5721	5746	11467	

Until the age of 14 is reached no child can legally leave school for other cause than death, removal from the city, or physical or mental incapacity. So far as is known or believed, very few children do leave school or remain out of school for other reasons, and for the rapid decrease in numbers in the first two grades there are but two explanations: either there are many children in these grades who are fourteen when they enter school, or who become so in the first two years of school life, and who then leave school for work, or there is great retardation at this point, causing many children to be counted twice. Each cause, indeed, is probably responsible in part. Certain it is that many children of foreign birth or parentage come to us much over age, some of them old enough to be in the high school, who are yet, because of their ignorance of English, educationally in the first grade. These pupils progress slowly, and leave school as soon as age or the ability to read well enough to get an age and schooling certificate will permit. While they remain, however, they swell the numbers and increase the average age in the first grades to an abnormal degree. Very young children, on the other hand, frequently attend irregularly and so remain long in the grade through no fault of the school. The compulsory school age begins at seven, yet we receive children at five, which is far too early for the best results. Such children frequently stay out altogether in the winter. Under the law we cannot compel them to attend, and holding the views I do regarding attendance at five, I should not wish to force them into school if I could. Many enter in

April, and being still in the first grade in September they are counted in each of two school years. In the school year 1908-9 the number of pupils who entered the first grade as their first experience in school was less than half the total enrolment. The large size of the first grade as compared with the others is, therefore, less real than apparent, and the same is true, though to a less degree, of the second grade. The standard grades, indeed, are the third and fourth, between which there is a difference of only five, and that in favor of the higher grade. Last year the difference was but three, the third exceeding the fourth by that number. After this point all pupils have learned to read, and those who are old enough leave for work in constantly increasing numbers.

The greatest per cent. of decrease, as shown by the table, is 32 between the ninth and tenth grades, that is, between the grammar schools and the high school, and if we compare the ninth grade of December, 1908, with itself as tenth grade in 1909, the difference is still larger. In 1908 the ninth grade had 555 pupils, of whom 30 are still in the grammar schools, leaving 525 who have gone forward or who have gone out. Of these 308, or 59 per cent. are in the high school in December, 1909. The 41 per cent. not now in school include those who dropped out of the ninth grade between December, 1908, and June, 1909, those who did not graduate in the latter month, those who graduated but did not have certificates for the high school, those who took, or were entitled to take, certificates but did not use them, and those, if any, who have fallen out of the high school since September. Mak-

ing all possible allowances, however, the number is regrettably large, and the means by which it may possibly be reduced should be a very serious subject of study by all who have to do with it. The per cents. of decrease between all the grades, indeed, present most interesting but most perplexing problems, and anything which will make even a small contribution to their solving must be of value.

Retardation

To find a remedy for retardation, that is for failure to secure promotion at the end of a school term or year, it is first necessary to know its causes. On this point a little study of the subject in a few schools revealed conditions as follows:

Twelve per cent. of the non-promoted pupils had been absent more than half the time, and their failure was attributed to this fact. Irregular attendance was evidently a contributing cause in many other cases, the average loss of all the unpromoted pupils from absence amounting to twelve per cent. That children cannot learn unless they are at school is a truism that many parents cannot be made to comprehend, and I have no doubt that retardation is due more to irregular attendance than to any other cause. Absence is often excusable, but it inhibits progress just the same, and it is probable that it was a principal rather than a contributing cause of failure in cases where pupils were absent much less than one-half the time.

Eight per cent. were distinctly subnormal or feeble minded, one being of a grade of intelligence so low as sometimes to need a guide to the school room. Of course he should not have been in school at all, or at least in the school where he was, but the city has no other place for him. Closely connected with this class were three per cent. of degenerates, children who, though quite small, had already been in the hands of the police.

Physical incapacity was the assigned cause of seven per cent. of the failures. One of this class, for instance, had cataracts on the eyes so that she could not see to do much; others were undernourished, puny, anaemic, etc. Other children were sick at times, and their physical condition was doubtless one of the causes of failure, but of only seven per cent. was physical unfitness put down as the sole or principal cause.

Five per cent. were so immature as to have failure charged to that cause alone. In the first years of school life immaturity is a large factor in retardation, though one not easy to measure. Only a few pupils are so immature as to make no progress, but there are many who are sufficiently so to be greatly retarded by it. When to these ill health or irregular attendance is added, failure is inevitable. Observations in other schools than the ones recently studied convince me that five per cent. as a measure of the retardation caused by lack of maturity is much too small.

Five per cent. came to school unable to speak English. Because of large size they were put in classes much in advance of them in scholarship, and

the handicap of ignorance of the language of the school unfitted them for promotion at the end of the year. Had the same investigation been made in many schools the five per cent. would have been increased tenfold or more, and as an average for the whole city five per cent. is manifestly much too small.

The remaining failures to win promotion were attributed by teachers to slowness, laziness, and indifference. Failures from immaturity were confined to the first and second grades, and only one of the subnormal children had progressed beyond the third grade. The slow and the indifferent, on the other hand, were most numerous in middle and upper grammar grades.

The review is disheartening, yet with some encouraging disclosures. The immature, after a longer or shorter period of waiting, often develop grandly; the sick sometimes recover; the slow occasionally accomplish unexpectedly good results; those of foreign birth or parentage frequently become excellent scholars when once they have learned English, and even the lazy and the indifferent are sometimes aroused to do fine work, but most encouraging of all is the fact that the entire one hundred per cent. of the unpromoted was but a small fraction of the whole number of pupils in the schools.

Remedies are naturally suggested by a knowledge of causes. Every pupil who enters school at the first grade should first be examined by the school physician, and if too immature for normal progress should be made to wait until added age has fitted him for the tasks he is to take up. This is done in every

school in England, and in some cities in this country. It should be done everywhere. The physically incapable, too, should be studied by the school physician, and put in the way of cure if that is possible. The feeble minded should all be at Waltham. If parents will not consult the best good of their children and send them there, the public schools should be closed to them. For the abnormal, the subnormal, and for all who are too slow or dull for the ordinary schools, special schools adapted to their needs should be provided. Similar schools should care for non-English speaking pupils until they are ready to graduate into regular schools. For the uninterested and the indifferent a larger variety of work should be provided, more or less industrial, which the pupil himself will recognize as a direct preparation for the thing he is to do after he leaves school. These remedies will not cure every case, but they will cure many. The sick, and the parent who will keep his child from school for no good cause, we shall have with us always; some unpromoted pupils there will always be, but the remedies here proposed will reduce them to a minimum. The question is economic rather than educational. Can we afford it? We can because we ought.

High School

The High school graduated a class of 213 in June and received an entering class of 402 in September. Of this number 312 were from grammar schools, 48 from parochial schools, 33 from adjoining towns

which possess the certificate privilege, and 9 were admitted by examination. The number of ninth grade pupils who were promoted to the high school was 390. Of these 78, or 20 per cent., failed to present themselves at the High school in September.

Graduation exercises were held in the Opera House June 21. The program, the names of the graduates, and the names of the Carney Medal and Honorable Mention students are as follows:

ORDER OF EXERCISES

- 1 OVERTURE Berlin in Smiles and Tears *Conradi*
AMERICAN ORCHESTRA
- 2 CHORUS Oh Hail Us Ye Free *Verdi*
- 3 SALUTATORY The Indian of Today
MARGARET ELLIOTT
- 4 SEMI CHORUS Boat Song *Cowen*
Soprano—MISSSES PHILLIPS, '09, MORSE, '09, CLARK, '09,
BARRETT, '09, CAROLAN, '09
Alto—MISSSES CALLAHAN, '10, MACK, '09, SPAULDING, '09
Tenor—WOODIES, '09, FIELD, '09
Bass—DONAHUE, '09, LEGGATT, '12
- 5 SELECTION Algeria *Herbert*
AMERICAN ORCHESTRA
- 6 ADDRESS
DR. CHARLES S. CHAPIN
Principal of the Montclair, N. J., State Normal School
- 7 CHORUS Day is Waking *Barnby*

8 PRESENTATION OF THE LOWELL HISTORICAL SOCIETY PRIZES,

For Best Essays on the following subject:

"LOWELL, THE SITE FOR A BEAUTIFUL CITY"

First Prize: \$10 in gold, Tessie Gertrude Curry

Second Prize: \$5 in gold, Geneva Mertice Coggins

Presented by SOLON W. STEVENS, ESQ.

9 SEMI CHORUS

a. Venetian Boat Song *Blumenthal*

b. Serenade *Meyer-Helmund*

First Soprano—MISSES DAINTON, '09, HOGAN, '09,
MORSE, '09

Second Soprano—MISSES CALLAHAN, '09, MACK, '09,
SPAULDING, '09

Alto—MISSES REARDON, '09, ARNOLD, '10, FULLER, '10

10 PRESENTATION OF CARNEY MEDALS

Honorable mention of those who have attained a
scholarship rank of 90 per cent.

MR. ARTHUR K. WHITCOMB, Superintendent of Schools

11 SEMI CHORUS "Twelve O'Clock" from Martha *Flotow*

Soprano—MISSES PHILLIPS, '09, MORSE, '09, CLARK, '09,
BARRETT, '09, CAROLAN, '09

Alto—MISSES CALLAHAN, '09, MACK, '09, SPAULDING, '09

Tenor—WOODIES, '09, FIELD, '09

Bass—DONAHUE, '09, LEGGATT, '12

12 VALEDICTORY Elements of Greatness

ARTHUR MORGAN McEVOY

13 CHORUS Pilgrim's Chorus *Wagner*

14 PRESENTATION OF DIPLOMAS

HIS HONOR, THE MAYOR, GEORGE H. BROWN

15 CLASS ODE

Air, "Auld Lang Syne"

Words by Marion Susan Foster

Beneath the lingering, lifting night,
The waiting world low lies;
Half conscious of the dawning day—
Flushed with a swift surprise.

But here and there the shadows lurk,
And waving mists conceal
The outlook, vague and far, which soon
The full day will reveal.

Our young hearts, hushed beneath the thought
 That life, more broad and stern
 Awaits us in the future days,
 Life's lessons gladly learn.

So, every deed and motive, shot
 With Truth's revealing gleam,
 We part this day with firm intent
 "To be and not to seem."

16 FINALE Turkish March *Mozart*
 AMERICAN ORCHESTRA

GRADUATES

Five Years' Course

George Edward Mahoney

Edward John McVey

Four Years' Course

Thomas Crandall Atkinson
 Ralph Eastman Badger
 Thomas Wilkinson Blades
 Hammond Barnes
 Joseph Paul Calnan
 Fred Miller Cameron
 Everett Oliver Coburn
 Cedric Hamlin Collins
 William Joseph Conley
 Romeo Couture
 Ray Putnam Dinsmore
 Robert Abbott Donahoe
 Joseph Paul Donahue
 Jack Anderson Dow
 Fred John Emerson
 Rufus Chester Field
 Leo Raymond Foye
 George Dorsey Freeman
 Charles Bigelow Garmon
 Samuel Kidder Gibson
 James Henry Gilbride
 Oliver Cushing Hall
 James William Harrison

George Amos Hill
 Eugene Sumner Hylan, Jr.
 Laurence Malcolm Jackson
 Oscar Eli Kelsey
 James Edward Joseph Lynch
 Paul Robert Manning
 Thomas Francis Markham
 Carleton Abbott Mixer
 Arnold Wheeler Moore
 Frederick Edward Morris
 Percy Judson Munn
 Leo Timothy Murphy
 Waldo Emerson Murphy
 James Edward McCoy
 Arthur Morgan McEvoy
 Jeremiah Joseph O'Neil
 Harry Levi Peavey
 Horace Seward Proctor
 Charles Elmer Rollins
 Harry Morse Sawyer
 Philip Lawrence Scannell
 George Francis Seede
 Franklin Fearing Spaulding

William Ransom Thompson	Genevieve Story Hunter
George Thorndike Trull	Helen May Hurd
Clifford Almon Wells	Alice Beaumont Ingham
William Whitman	Helen Frances Jackson
Helene Rose Abels	Helen Louise Jaques
Lavinia Adlington	Bernice Adams Jones
Clara Louise Barnard	Gertrude Theresa Keyes
Ruth Mabel Barrett	Gladys Alice Kimball
Katherine Gertrude Boddy	Dora May Laflamme
Gertrude Elizabeth Brady	Marghretta Dempsey Lennon
Mary Frances Carolan	Annabelle Claire Lowney
Martha Fabyan Chadbourne	Mary Annabelle Mack
Florence Elizabeth Clark	Helen Gertrude Mitchell
Marion Hester Clogston	Harriet Alice Morse
Geneva Mertice Coggins	Beulah Agnes Macdonald
Loretta Helena Comerford	Grace Elizabeth McAllister
Lucille Eugenie Comtois	Isabel McIver
Elizabeth Rebecca Connell	Lettie Roberta McMaster
Mary Margaret Cowell	Helena Mae O'Loughlin
Mary Florence Cryan	Mary Elizabeth O'Neil
Tessie Gertrude Curry	Lena Florence Parker
Esther Cutter	Agnes Genevieve Phelps
Irene Evelyn Dodge	Etta Marion Phillips
Margaret Elliott	Louise Read
Ruth Mary Emberg	Mary Josephine Reardon
Alice Irene Farnan	Melissa Alberta Rolfe
Florence Elinor Fletcher	Ruth Leighton Sawyer
Sarah Pemberton Forbes	Esther Adelaide Sanders
Marian Susan Foster	Mary Ellen Shea
Louise Gibson	Margaret Washburn Smith
Beatrice Emma Gould	Bertha Adella Spaulding
Henrietta Isabel Grady	Agnes Louise Taisey
Jennette Grant	Laura Ella Thomas
Anna Pauline Guyton	Ellen Marian Thomas
Mabel Elizabeth Haggerty	Annette Marie Vigeant
Margaret Veronica Hansberry	Rachel Leonette Wallace
Alice Esther Harrigan	Adelaide Fiske Walsh
Vera Frances Harris	Agnes Lillian Walsh
Gertrude Lalia Harvey	Hazel Whitcomb
Helen Hoagland	Ruby Irene Willett
Helen Louise Hogan	Blanche Estella Winchell
Mae Agnes Hogan	Eda Relief Wing
Sadie Hopner	Lucia Woodworth
Ruth Howe	Kathleen Wright
	Edith Lidwine Sullivan

Three Years' Course

Philip Thomas Bibeault	William Henry Carey
Raymond William Bowne	James Edward Cooney
James Henry Breakey	George Augustine Daidy
George Edward Burrows	Harold Eugene Dyer
Ralph Franklin Canney	Walter Farrell

Harry Horace Hacker
 John Joseph Francis Handley
 John Russell Harrington
 George Franklin Kirby
 George Augustine Kirwin
 Horace Charles Omer Landry
 Charles Bartholomew Lee
 John Francis Leavitt
 James William Maguire
 Philip Joseph Theodore Maguire
 Raymond Loren Pullen
 John Augustine Quinn
 Eugene George Ricard
 Alfred Francis Rodgers
 William Norman Scott
 George Russell Smith
 Harry Matthew Stein
 Arthur Frederick Woodies
 Ida Blanche Alexander
 Helen Elizabeth Alway
 Clara Ellen Bailey
 Iva Mabelle Beardsley
 Florence Gertrude Bolton
 Veronica Catherine Brennan
 Blanche Cooledge Burrill
 Margaret Edith Carroll
 Ethel Florence Cheney
 Helena Josephine Connell
 Mary Margaret Costello
 Margaret Gertrude Cullen
 Mary Ellen Dainton
 Mary Magdalen Desmond
 Eulalia Catherine Donlon

Mary Catherine Dwyer
 Gertrude Clara Earle
 Mabel Genevieve Ecklund
 Alice Mae Flemings
 Margaret Winifred Mary Flynn
 Hattie Eliza Fox
 Clara Isora Gilman
 Christabel Frances Gleason
 Ethel Del Gordon
 Jennie Louise Hartwell
 Edna Marian Hogg
 Helen Josephine Kirwin
 Alice Ethel Mills
 Isabel Henrietta Moir
 Katherine Cecelia McArdle
 Catherine Cecilia McCarthy
 Annie Fortunate McKercher
 Hilda Frances Noonan
 Anne Louise Noyes
 Laura Mary Patnaude
 Olga Elizabeth Pihl
 Rosa Verecunda Quinn
 Frances Elizabeth Redway
 Belle Marion Robinson
 Louise Rogers
 Ruth Elizabeth Staples
 Rowena Sturtevant
 Mabel Mary Tansey
 Florence Gertrude Taylor
 Irene Thorne
 Elizabeth Frances Tiffany
 Mildred Susan Vinal
 Dorothy Prentiss Webster

Carney Medal

1909

Arthur Morgan McEvoy
 Waldo Emerson Murphy
 Paul Robert Manning

Lena Florence Parker
 Margaret Elliott
 Geneva Mertice Coggins
 Irene Evelyn Dodge

Honorable Mention

James Henry Gilbride
 Harry Morse Sawyer
 Gertrude Elizabeth Brady
 Kathleen Wright
 Marian Susan Foster

Ruth Leighton Sawyer
 Helene Rose Abels
 Gladys Alice Kimball
 Esther Adelaide Sanders
 Grace Elizabeth McAllister
 Martha Fabyan Chadbourne

Industrial Education

That education should be in part industrial seems to be agreed, but on the question of what to do and how to do it there is no agreement at all. Dissatisfied with the slow progress of the state board of education in putting vocational training into existing schools, and with the still slower progress of the industrial commission in establishing independent schools, the legislature of 1909, at the suggestion of the governor, abrogated both bodies and created a new board for the prompt accomplishment of the desired result. Responsibility, however, often makes the radical a conservative, and in his next inaugural the governor reports that the "question is a great one," that the new board so far from doing anything "has not had time to formulate a policy," that "the statutes are not clear," that "new legislation will be asked," and that even after this has been obtained the board will still "require some time to study out a system." In the light of this confession the bodies previously in charge may well be pardoned if they smile a bit sardonically, and those of us who were hoping for immediate enlightenment on a difficult problem will evidently have to wait a while longer.

In the meantime a few things appear to be fairly well settled, and settled in the way on which the schoolmen of the state have always insisted.

First, industrial education, as to the value of which all are agreed, must be a part of the public school system, and not independent of it. Locally we have never swerved from this idea, our commercial

course, our wood working, blacksmithing and machine shop classes, being all parts of our high school instead of being in separate schools. And now the governor, speaking, doubtless for his new board, declares that "it would be an unwise policy and bad judgment to create separate and independent schools for industrial education." The hot debate of the last three years on this point may now, therefore, be presumed to be at an end.

Second, agreement is now general that vocational training should wait for the age of fourteen or the completion of the elementary school course. This does not, of course, exclude from the grades a large amount of hand work, the value of which is conceded. The point is that this hand work shall be cultural in character and general rather than special in kind. If it deserves a place in the grade school it should be a benefit to all and should be taken by all without regard to future plans or employment. Later industrial education, on the other hand, may well have direct reference to the vocation which the pupil expects to follow.

Third, it is pretty well agreed that for pupils over fourteen years of age or in high school courses the technical studies shall be accompanied in the same course by a liberal allowance of cultural studies, that is, of language, literature and history. No vocational course should ever put a pupil into a different social or life class from that of his mates who are in the purely academic courses. Students in different courses should not only be in the same school, learning to respect each other through association, but

they should sit in the same rooms and recite, in some studies, to the same teachers. Our technical courses now find a place for one foreign language, for some science, some mathematics, and as much and as good training in English as is given those students who are preparing for college. And this will always, I hope, be true if we add other technical or vocational courses, as I trust we may.

Now as to what we are already doing: The impression is general, I think, that Lowell is behind hand in the matter of industrial education, but the reverse is true. Few cities in the country are, indeed, doing better. Lowell is a textile city, and it has the finest textile school in the world. It is true that the city does not control it, but its students have the right to attend it, in the day time by payment of tuition, and in the evening without cost to themselves, the city paying \$8000 annually to secure the privilege. Lowell is next a business center, and to supply a business education the high school offers a commercial course excelled by that of no city of its class and equalled by few. It is a city of machine shops and the building trades, and its mechanics arts course in the high school does not, indeed, turn out journeymen, but it does give to all kinds of workers in wood and iron just the preparation they need for the highest future efficiency. For evening work its evening drawing and art schools are the very best of their kind, both in esthetic training and in the practical work of producing skilled draftsmen. The principal of the only independent industrial school in New England stated recently that Lowell has no need of a separate

school for teaching industries, since work of this kind is already being done far better in our high school than any independent school would be likely to do it.

This is well, but it is not enough. The high school is the people's college, and it should offer everything for which there is a proper and legitimate demand. It should, I believe, offer courses in music, in art, in natural science, and especially in domestic science. Lack of money and of room makes the first three impracticable at present, but not even these two lacks, serious as they are, ought to prevent us from giving serious consideration to the last named course. Every girl who lives to womanhood will have something to do with a home, and the great majority will become, or should become, home makers. The vocation of home making is the most important in the world, and the education which trains girls away from it rather than towards it and for it is so absolutely wrong as to need no argument to show its folly. For the highest good of more than half its students, then, the high school should have a strong course in domestic science. Such a course should be the full four years in length. It should be as liberal and as cultural as any technical course can possibly be. It should require one foreign language, some mathematics, some science, and the best possible training in English language and literature. On the technical side it should include cooking, the chemistry and nutritive value of foods, sewing, dressmaking, millinery, the care of a house, everything, in short, which will help the girl to become the competent and successful mistress of a home. For such a course, though, there

is, I confess, no general demand on the part of either students or parents. That a fair consideration of the subject would produce such a demand I am convinced, and I therefore commend it to the attention of the school committee and of the public.

In manual work in the elementary schools we are not doing as well as in industrial work in the high school. We have no spare rooms adapted to such purposes, and the expense of new buildings, equipment, and special teachers would be so great that the school committee has not yet seen its way clear to introduce it as extensively as its merit deserves. The teachers of drawing are doing a good deal of construction work in connection with their special subject; enterprising teachers are having knife work, cane seating, cobbling, brass hammering, etc., to a considerable extent, but sloyd we do not have. I wish we could do more; that we do not is due to what the committee conceives to be the need of economy. Thus far, too, there has been no strong or general demand for it on the part of parents. I am glad to state these conditions plainly in a report which will go into the hands of the parents of every child in the public schools. If the public wishes it, and is willing to pay for it, I think I can promise that the school committee will add more of it without delay.

Medical Inspection

Medical supervision of schools in Lowell is at last an accomplished fact. For it the schools waited long; for the lack of it they suffered much, but for

their loss through unnecessary delays, however, there is at least a partial compensation in the almost ideal conditions under which it was finally inaugurated.

Medical inspection of schools has been authorized by statute in Massachusetts for many years, and was made mandatory in 1906. In Lowell, however, the law was nullified by the failure of the city council to make an appropriation for its enforcement. In 1908, therefore, the veto power of the city councils in this particular was taken from them by the legislature, and the school committee of Lowell was at last in a position to obey the law, a thing it greatly desired to do. The co-operation of the Middlesex North District Medical Society was sought, and promptly given. A joint committee composed of members of the school committee and of the medical society planned the work and devised rules for its conduct. The city was divided into nine districts, each containing approximately 1400 public school children, and March 2, 1909, nine physicians, nominated by the medical society, were elected by the school committee as school physicians. The next day each was assigned to a school district, and all entered at once upon their new duties.

The law of the state and the rules of the school committee under which the work was to be done are as follows:

Acts of 1906: Chapter 502.

**AN ACT RELATIVE TO THE APPOINTMENT
OF SCHOOL PHYSICIANS**

SECTION 1.—The school committee of every town and city in the Commonwealth shall appoint one or more school physicians, shall assign one to each public school within its city or town, and shall provide them with all proper facilities for the performance of their duties as prescribed in this act: provided, however, that in cities wherein the board of health

is already maintaining or shall hereafter maintain substantially such medical inspection as this act requires, the board of health shall appoint and assign the school physician.

SECTION 2.—Every school physician shall make a prompt examination and diagnosis of all children referred to him as hereinafter provided, and such further examination of teachers, janitors and school buildings as in his opinion the protection of the health of the pupils may require.

SECTION 3.—The school committee shall cause to be referred to a school physician for examination and diagnosis every child returning to school without a certificate from the board of health after absence on account of illness or from unknown cause; and every child in the schools under its jurisdiction who shows signs of being in ill health or of suffering from infectious or contagious disease, unless he is at once excluded from school by the teacher; except that in the case of schools in remote and isolated situations the school committee may make such other arrangements as may best carry out the purposes of this act.

SECTION 4.—The school committee shall cause notice of the disease or the defects, if any, from which any child is found to be suffering to be sent to his parent or guardian. Whenever a child shows symptoms of small pox, scarlet fever, measles, chicken pox, tuberculosis, diphtheria or influenza, tonsillitis, whooping cough, mumps, scabies or trachoma, he shall be sent home immediately or as soon as safe and proper conveyance can be found, and the board of health shall at once be notified.

SECTION 5.—The school committee of every city and town shall cause every child in the public schools to be separately and carefully examined and tested at least once in every school year to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefit of his school work, or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results. The tests of sight and hearing shall be made by teachers. The committee shall cause notice of any defect or disability requiring treatment to be sent to the parent or guardian of the child, and shall require a physical record of each child to be kept in such form as the state board of education shall prescribe.

SECTION 6.—The state board of health shall prescribe the directions for tests of sight and hearing and the state board shall, after consultation with the state board of health, prescribe and furnish to school committees suitable rules of instruction, test-cards, blanks, record books and other useful appliances for carrying out the purposes of this act, and shall provide for pupils in the normal schools instruction and practice in the best methods of testing the sight and hearing of children. The state board of education may expend during the year nineteen hundred and six a sum not greater than fifteen hundred dollars, and annually thereafter a sum not greater than five hundred dollars for the purpose of supplying the material required by this act.

SCHOOL COMMITTEE RULES FOR SCHOOL PHYSICIANS

1.—The public schools of the city shall be divided into nine districts, and a school physician shall be assigned to each.

2.—The school physician shall visit each of the schools in his district at least once each week, and in cases of contagious disease or other emergency shall make such other visits as are in his opinion necessary to

thoroughly safeguard the health of the pupils who are under his care. He shall also visit the school whenever the principal notifies him that his presence is desired, and shall arrange with each principal some method, by signal or otherwise, by which such notification can best be made.

3.—He shall acquaint himself with the methods of sanitation, ventilation, heating, lighting, etc., in each house to which he is assigned, and shall make to janitors and teachers such suggestions on all matters connected with the health of pupils as seem to him to be needed. He shall also report to the superintendent of schools any conditions which are, in his opinion, inimical to health.

4.—He shall examine and pass upon all pupils who may be referred to him by principals or teachers as to any condition of body or mind which may require exclusion from school or special care either at home or in school, and in cases requiring removal or home care he shall state in writing his reasons for advising such removal, and the teacher shall send the pupil home with the physician's written reason in a sealed envelope. A duplicate of every such notice shall be retained by the teacher and shall be kept on file.

5.—In cases requiring the attention of the board of health he shall notify that board promptly, and afterwards co-operate with it heartily as occasion may require.

6.—At the request of the superintendent of schools or of a truant officer the school physician shall visit at home a pupil alleged to be sick, to determine whether the pupil is really ill, and if so, whether the disease is one requiring action on the part of the school committee or board of health.

7.—As early as possible in each school year the school physician shall examine each child assigned to him, giving special attention to those who are entering school for the first time, to ascertain whether the pupil is suffering from any disability or defect of body or mind which will tend to prevent normal progress in the school and shall notify parents and advise teachers in regard to any conditions he may find to which their attention needs to be called.

8.—Teachers shall refer to the school physician every child showing evidence of ill health, and, as far as is practicable, every child returning to school after an absence on account of sickness or from unknown cause, unless such child returns by permission of the board of health.

9.—The school physician shall instruct teachers as to the detection of disease or defects in children, and as to methods of testing eyesight and hearing.

10.—The school physician shall not prescribe for pupils, except for pediculosis, nor shall he advise as to the choice of a physician except to suggest that the family physician be consulted.

11.—Each school physician shall make a report to the superintendent of schools on the Saturday before the last Tuesday of each month, on blanks furnished for the purpose, of the number of pupils examined; the number of negatives; the number excluded; the number recommended for treatment or special adjustment of work, with diagnosis of excluded or recommended cases.

As has already been remarked, the conditions under which the work of the school physicians was inaugurated were most favorable. The subject had been under discussion so long that the public was well informed in regard to it, and was predisposed to receive the physicians with favor. Because of known needs and in the hope of receiving greatly needed assistance, teachers eagerly awaited their coming. The physicians themselves came as the representatives of the school committee, and not the board of health as has so often been the case in other cities. This is not to say that a board of health cannot supervise schools as well as anybody else, nor that such boards are not doing excellent work of this kind in other cities, but it still remains true that for a work in schools there is often a manifest advantage in having it done under the direction of the school committee. The Lowell board of health, by the way, recognized this fact, and preferred the arrangement which has been made. The co-operation of the medical society not only assured the support of the profession, but gave the project standing with the public. The method of selecting the school physicians eliminated all questions of politics and assured an ideal corps of workers. Every man elected was already a physician of established reputation and large practice. They were all, too, men of public spirit, interested in the work and adapted to it; men willing, in short, to do a thousand dollars' worth of work for a salary of two hundred.

The work thus planned and inaugurated has been effective and successful. No slightest friction with

teacher, child or parent has arisen in a single case. Public approval has manifested itself more and more strongly as the months have gone by, and children have grown to welcome rather than fear the visit of the physician. Not all have quite the confidence of the kindergarten child who encouraged another little girl who was suffering with toothache by saying, "Dr. Blank will take that tooth right out just as easy as anything and put in a new one before you go home," but the spirit of confidence and good will which prompted the remark is universal.

In the ten months since their election the school physicians have made 1,176 calls, have examined 9,229 pupils, have advised treatment in 3,121 cases, and have ordered the exclusion of 289 children. Exclusions, of course, have been temporary in almost all cases. A few were for contagious diseases like diphtheria and scarlet fever, but in Lowell the board of health does its work too well to have many children reach school while suffering with these diseases. Neither has been epidemic in Lowell this year, a fact for which the credit may well be given to the board of health, though perhaps the school physicians have helped a little. Other exclusions were for less dreaded diseases like measles and mumps, and tonsilitis, more or less acute, holds a prominent place. One exclusion was for tuberculosis of the lungs, with temperature 101 degrees and pulse 120. This poor boy did not return, though his case was followed to see that he had proper care, a thing he was not getting in his home where he was sleeping with two brothers in a small and totally unventilated room.

The cases for which treatment was advised include, apparently, pretty much all the diseases to which human flesh is heir, but those of the throat are by far the most numerous. Cases of defective sight and hearing are usually discovered through the examination conducted by teachers, so that school physicians have less to do with eyes and ears than would otherwise be the case. Tuberculosis, happily, proved to be less general than had been feared, only twelve cases being reported.

To diagnose diseases, however, was an easy matter in comparison with the task of securing treatment. Parents were notified by card. Some responded promptly, but the majority did not. To persuade them, then, became the duty of the teachers, and most efficiently did they respond. In some schools, indeed, teachers took up this work with such energy as to secure treatment for every pupil for whom it was recommended. "I have been to see the parents of that boy three times already," said one teacher, pointing out a boy in her room, "and I am going again tonight. He is already deaf and too stupid to learn on account of adenoids in his throat, and I propose to keep going until I get something done." And this she did until success crowned her efforts, and a boy with restored health and recovered ability was her reward. Not all teachers, however, did as well, and the work was so great that the need of a helper was evident, especially in difficult and baffling cases.

Recognizing this need a philanthropic organization, the Florence Crittenden Society, offered, as an

experiment, to furnish from April 20 to the end of June the services of a physician's helper whose duty should be to persuade parents to give their children the treatment demanded by their condition. The offer was accepted, and Miss Alice M. French, a graduate of the Training School, was employed. Her work proved so valuable that she was given permanent employment by the school committee in September, and is still in service. That she has been successful may be judged by the statement recently made by one of the school physicians, Dr. Gardner, that in 68 cases given her by him she had secured a promise of needed action in all but five.

In cases where operations are required, Miss French accompanies the child to a hospital when the parents cannot, or will not, do this. In this service she has taken 22 children to hospitals for operations for adenoids and hypertrophied tonsils, and 7 for purulent discharge from the ear. She has secured the admission of three tuberculous children to the tuberculosis camp of the Lowell General Hospital, and the admission of two to the free home for consumptives in Dorchester. She has taken in charge 61 children for examination for defective eyesight, of whom 25 have received treatment and 22 have been supplied with glasses. She has taken 26 children to be vaccinated, and two for treatment for scabies. She has persuaded or forced treatment for pediculosis in unnumbered cases, buying crude petroleum in ten gallon lots and supplying it free to those who need it. Of the number of her calls upon parents she has long ago given up the task of keeping an account, but

the records she has kept prove, I think, that her services add much to the value of the work of the physicians.

Miss French's record is for the time from September 13 to December 20. Of children treated through other agencies in the longer time between the first of March and the last of December, statistics are far less complete. As before stated, physicians recommended treatment for 3,121 children. In December teachers reported that treatment had actually been given to 1996. This number is so large as to make it certain that cases recommended rather than cases treated were reported in many cases. While, therefore, little reliance can be placed on the figures just given, it is still certain that treatments were numerous, that none of them, so far as known, did any harm, and that many of them did an immeasurable amount of good.

When the medical inspection law was passed in 1906, Governor Guild expressed the opinion that it was the most important enactment in twenty years; the act of the school committee of Lowell in inaugurating the work here in 1909 was, in my opinion, the best thing done by any committee in an equal length of time. For this result the credit is due to all members of the school committee, to the Middlesex North District Medical Society, and most of all to the president of the school board, Dr. Lamoureux, whose position as representative of the board and as member of the medical society gave him the exceptional opportunity of which he made successful use.

Tests of Sight and Hearing

The tests of sight and hearing required by statute were made by teachers in October and November, with the following results, one school not reporting:

	Pupils Exam- ined	Defective in Seeing	Per Cent. Defective	Defective in Hearing	Per Cent. Defective	Parents Noti- fied
Primary Schools	4490	599	13	149	3	379
Grammar Schools	5103	835	16	261	5	759
High School	1203	277	23	110	9	180
Totals	10,796	1711	16	520	5	1318

Pupils with two-thirds or more of normal vision are not counted as defective.

Tests of capacity to see and hear were first made in schools in 1906, at which time 23 per cent. of the pupils examined were found to be defective in vision and 7 per cent. in hearing. The next year defects of less than two-thirds in vision were not counted, and defectives of this class were reduced to 19 per cent., while defects of hearing remained the same. In 1908 there was no change in seeing, but hearing improved one per cent. In 1909, as is shown in the table, defects of vision fell off to 16 per cent., and a further improvement of one per cent. was made in hearing. There is no doubt that these matters are receiving far more attention now than before the tests were made, and that great benefit has thereby come to many pupils. Many parents are now aware of the needs of their children, and are giving them all possible help and care. That it should be necessary, however, to send 1318 notices to parents who are still ignorant of the defects from which their children suf-

fer, or are still indifferent to them, is proof of the continued need of annual tests and of the campaign of education which teachers, now reinforced by doctors, are carrying on.

School Savings Banks

The first school savings bank in Lowell was started in the Varnum grammar school November 2, 1908. It was popular and successful from the start, and has increased steadily in interest and in usefulness throughout the year 1909. Deposits, averaging \$46.24, or about 15 cents to each depositor, are received Monday morning of each week that the school is in session. About three-fifths of the children of the school are depositors, the average sum standing to the credit of each being \$5.72 on December 31. Bank books, the reward of a deposit of one dollar or more, were in the possession of 261 pupils on the same date. The total sum to the credit of the school at the end of the year was \$1973.35. Deposits have usually been in very small sums, showing that the money has been saved or earned, and not donated by some relative or friend. Thrift and frugality have thus been taught and have been increased by practice until the attitude of the whole school towards these virtues has been noticeably improved. For these fine results the credit is due the master and the teachers who have spared no time or pains in the effort to benefit the school.

During the fall the Middlesex Women's Club has urged the masters of all the other grammar schools to open school banks, and has offered co-operation. The

savings banks of the city have expressed sympathy with the movement, and have offered their services. At the Varnum all the work is done by the master and teachers, but the banks are willing to send a representative to the schools each week to receive deposits and relieve teachers of both labor and responsibility. Conditions are, indeed, so favorable that the project of giving children an opportunity to become depositors in a savings bank by means of very small deposits made at school houses is now receiving favorable consideration in a majority of the grammar schools, and in one or two of the primary schools. It is almost certain, therefore, that such arrangements will be made at several schools very early in 1910.

Evening and Evening Drawing Schools

The legislature of 1909 codified the laws relating to labor, chapter 514, making a document of some thirty-five pages. No radical changes were made other than the introduction of a new definition by which the word "minor," that is a person under twenty-one years of age, "shall mean a person under eighteen years of age." This arbitrary change in definition was probably made to relieve persons over eighteen from some restrictions as to kinds and hours of labor. The attempt to do this by indirection, however, brought about one result which probably was not intended. The provision requiring minors to attend evening school as a prerequisite for legal employment remains without change, but by definition a person over eighteen years of age is no longer a

minor, so far as this law is concerned, and so is freed from any compulsion to attend school. It is not probable that this result was foreseen, but it followed just the same, and the law might well have been entitled, "An Act to Encourage Illiteracy in Persons between the Ages of Eighteen and Twenty-One."

The natural result of this change was a large decrease of attendance in the elementary schools. The October, 1909, term opened with 368 pupils less than were present in the same month of 1908, and the falling off in attendance since that time has been correspondingly greater than is usual. The high school, on the other hand, opened in October with 75 more pupils than in 1908, and has since maintained its numbers with less than the usual decrease.

The school for Hebrews on Howard street was not opened this year. Otherwise the number of schools remains the same as last year, the only change being the closing of the Varnum and the opening of a new school at Middlesex Village.

Evening drawing schools remain the same as last year. Attendance in the design classes has been larger than for several years; in other classes the attendance is about the same. Unpretentious exercises of graduation were held at the close of the term last March, at which the diplomas were given by Mayor Brown. The speaker of the evening was Mr. Channing Whitaker, the first principal of the school, and his address was not only of great interest to those who heard it but was also of such historical value as to justify having it printed as a permanent record.

In the term of 1908-9 the high school had 75 sessions, the evening drawing schools 40 sessions each, or 80 sessions in all, and the elementary schools 64 sessions, six sessions having been omitted because of stormy weather.

Graduation exercises of the evening high school were held in the hall of the high school March 26 with the usual large attendance of friends. The address of the evening was by Robert Luce, Esq. of Somerville; a class picture presented by Mr. James T. Shea was received by Mr. Edmund T. Simpson, chairman of the committee on evening schools, and diplomas were presented to 88 graduates by Mayor Brown.

Statistics of the last completed term of all the evening and evening drawing schools, with names of graduates, are as follows:

SUMMARY OF EVENING SCHOOL ATTENDANCE.

For Term of 1908-1909.

SCHOOLS	Number of Rooms in each School Teachers at beginning of Term Teachers at close of term			WHOLE NUMBER ON TIME BOOKS			AVERAGE NUMBER BELONGING			AVERAGE ATTENDANCE			Per cent of Attendance	Graduates	Minors unable to read and write
				Males	Females	Total	Males	Females	Total	Males	Females	Total			
High School	29	29	26	551	471	1022	364	298	662	303	257	560	82		
Bartlett..... (French)	3	8	4		78	78		60	60		54	54	79		25
Bartlett..... (Greek)	1	7	9		171	171		139	139		132	132	95		160
Butler.....	6	7	2	120	30	150	46	29	75	34	18	52	69		4
Colburn.....	6	8	8	119	60	179	101	48	149	75	42	117	78	3	77
Cheever St...	2	6	5		106	106		68	68		62	62	91		46
Edson.....	6	14	7	135	108	243	67	66	133	56	59	115	87	9	163
Franklin.....		7	4	101	38	139	62	26	88	48	20	68	77	2	9
Green	6	10	6	216		216	86		86	86		86	100	1	118
Greenhalge ..	2	4	4	85	44	129	44	28	72	31	23	54	75		45
Mann.....	12	39	23	559		559	436		436	384		384	88		171
Old Moody..	4	7	6	83	71	154	48	55	103	40	51	91	88		114
Riverside.....		3	2	47	16	63	35	6	41	28	6	34	54	3	2
Varnum	3	2	2	55	33	88	25	14	39	21	13	34	87	9	2
Worthen St.	4	2	1	8	254	254	140		140	123		123	88	1	111
Totals	86	163	116	2325	1926	3551	1454	837	2291	1929	737	1966	83	28	1047

EVENING HIGH SCHOOL GRADUATES, 1909

Regular Course

James Edward Bean	Joseph Hugh Le Cam
Arthur James Bowden	John Joseph Linnehan
James Joseph Broderick	John Samuel MacCallum
John Patrick Broderick	Frank Seymour Marshall
George Edward Burns	Pierre Mathieu
James Francis Carr	Joseph Patrick McCartin
James Albert Cheetham	John Edward McCusker
James Patrick Condon	John George McGowan
John Joseph Connor	John Coleman McQuaid
Lawrence Francis Delaney	Frank Frederick Mills
Peter Joseph Dooley	James Francis O'Connor
Arthur Louis Eno	William Henry O'Dwyer
Henry Francis Flanagan	Nels Augustus Palm
John Frederic Gaffny	William Andre Provencher
John Russell Godet	Cornelius Leo Regan
Joseph Telesphort Gravel	Alfred Joseph Renaud
Donald Gregoire Gregoire	Louis Renaud
William Henry Hodgson	John Edward Richards
William Paul Hogan	Richard Thomas Robinson
Bernard Horan	Charles Leo Sadlier
Christopher Joseph Horan	John Timothy Sayers
Grant Arthur Jasper	James Thomas Shea
Victor Frederick Johnson	William Geddes Stevenson
Cornelius Joseph Kelley	Wilfred Haigh Taylor
Frank Joseph Kennedy	Percy Francis Warren
Peter Larkin	Arthur Cameron Wylie
Mae Agnese Armstrong	Mabel Irving McGee
Olive May Chaffee	Mary Frances McQuade
Catherine Gertrude Conley	Margaret Loretta Moriarty
Helen Elizabeth Dewire	Mary Elizabeth Moriarty
Catherine Anne Fitzgerald	Ella Frances Stanislaus Mulcahey
Catherine Ann Gill	Josephine Marie Mullane
Helen Estelle Hammersley	Josephine O'Brien
Kathleen Marcella Jennings	Helena Katherine O'Hare
Elizabeth Kelly	Sadie Elizabeth Quinlan
Mary Magdalen Kennedy	Mabel Agnes Sheehan
Veronica Cecilia Maguire	Etta Smith
Mary Margaret Manning	Cecilia Catherine Tenney
Julia Anna McCleary	Josephine Agnes Woods

Stenography

John Francis Burke	Frank Bernard Kelleher
Nora Tresa Conneely	Elizabeth Veronica Roche
Helena Elizabeth Cullen	Elizabeth Madeline Shea
Jennie Anna Minahan	Maud Ellen Sheehan
Elizabeth Jane Veracunda O'Brien	Irene Jane Sullivan

EVENING DRAWING SCHOOL.

Term of 1908-1909

CLASSES	ROOMS Teachers at opening of Term Teachers at close of Term			WHOLE NUMBER			AVERAGE			AVERAGE			Per cent of Attendance	Graduates
				ON			NUMBER			ATTENDANCE				
				TIME BOOKS			BELONGING							
				Males	Females	Total	Males	Females	Total	Males	Females	Total		
Architectur'l	1	4	2	62	1	63	43	1	44	29	1	30	68	
Machine	3	7	7	117		117	100		100	82		82	80	
Free-Hand...	2	4	4	76	30	106	58	22	80	46	18	64	86	
Modeling	1	1	1	29	15	44	12	7	19	11	4	15	85	
Design.....	1	1	1	5	17	22	3	12	15	3	9	12	90	
Totals	8	17	15	289	63	352	216	42	258	171	32	203	82	

EVENING DRAWING SCHOOL GRADUATES 1909

MECHANICAL DRAWING

Everett Collins
 George W. Dwyer
 Harold E. Dyer
 Elmer Dearth
 Wilfred S. Laporte
 James Noonan
 Theophilus Machon
 John V. Platin
 Willard Pike
 James B. Palm
 Joseph Pearson
 John Scott
 William Shaw
 John A. Taylor
 Carl Taylor

ARCHITECTURAL DRAWING

Henry E. Drolet
 Herbert Mattinson
 Alvin Polley
 Frederick R. Pearson
 Henri L. Racicot
 Ernest L. Taylor

FREEHAND DRAWING

Wilmena Thornton
 Honora Madigan

MODELING

George Deloria
 John Pinardi

"No School Bell"

Schools were closed three and one half days on account of stormy weather in the school year from September, 1908, to June, 1909, and four days in the calendar year 1909. This number is larger than in 1908; whether or not it is too large is for the public to determine.

Retirement of Mr. Swapp

Changes in membership of the school committee occur in most years, and they have rarely if ever been a matter of mention in an annual report. The closing of a term of service of twenty-five years, however, is an event which has never occurred before and is not likely soon to occur again. Reference to it, therefore, is not only appropriate but is demanded.

Mr. Andrew G. Swapp was elected to the school board in 1885, and has been in continuous service ever since. Declining a renomination in 1909, his membership ceased with the organization of the committee of 1910. At its last meeting of the year the committee of 1909 testified its appreciation of Mr. Swapp by many kindly and complimentary remarks, and by presenting him a beautiful and costly loving cup; ex-members of the school committee who had served with Mr. Swapp, and who were present in numbers to fill the room, presented him with a large picture, "Education of Greek Youth," and the teachers of the schools of which he had so long been sub-committee gave him a hall, or "grandfather's," clock. The occasion was a delightful one in every way, absolutely

unique in the history of the city, but well deserved and of use as showing that long and faithful service is really appreciated.

Mr. Swapp has not only been a member of the school committee for more years than any one else but he has always been one of its leading and most influential members. Again and again he has been president, and that he has not been in the chair still oftener has been due to his own desire that some one else should have the place. Strong, able, earnest, his influence on school legislation has always been much greater than would be measured by his single vote. With what he believed to be the best interests of the schools, no personal or political influence has ever been allowed to interfere, and to those who were opposed to him politically or otherwise he was ever so manifestly fair and just that he has always been honored and trusted by them. He was usually, perhaps always, right; but right or wrong everyone knew just where to find him, and he was respected and honored accordingly. He was a model public servant, and while the public service is the poorer for his retirement his example and the honors which follow him should be an inspiration to others in all the future.

In conclusion I wish again to express my high appreciation of the ability and fidelity of the teachers, truant officers and all associated with me in the work of the schools. To the school committee I also return more than formal thanks for assistance and support.

Respectfully submitted,

Arthur K. Whitcomb,

Superintendent of Schools.

REPORT OF THE TRUANT COMMISSIONERS FOR THE YEAR 1909.

	Total number cases investigated	Absentees	Truants	Wandering about the streets	Visited second time	Visited third time	Violating the rules of school	Arrested	Sent to the Middlesex County Training School.	Placed on probation	Prosecution of Parents	Working certificates issued—(14 to 16 yrs. of age)	Working certificates approved—over 16 yrs. of age
January.....	183	160	23	27	20	12	0	0	0	0	0	68	16
February.....	172	139	33	23	25	15	0	1	1	0	0	133	27
March.....	158	129	29	27	12	44	0	2	2	0	0	108	12
April.....	128	104	24	32	12	12	0	2	2	0	0	107	14
May.....	241	195	46	31	20	8	0	1	1	0	0	120	8
June.....	70	53	17	11	0	0	0	0	0	0	0	243	10
July.....	0	0	0	0	0	0	0	0	0	0	0	321	11
August.....	0	0	0	0	0	0	0	0	0	0	0	137	24
September.....	79	78	1	29	15	4	0	0	0	1	0	166	21
October.....	293	253	40	49	38	20	0	6	5	0	0	186	47
November.....	307	261	46	56	30	3	0	6	6	0	0	102	27
December.....	250	224	26	35	24	2	0	2	2	0	0	91	39
Totals.....	1881	1596	285	320	196	70	0	20	19	1	0	1782	256

Number of cases of contagious disease reported to the School Department for the year ending December 31, 1909, 382.

Diphtheria	106	Scarlet Fever	62
Measles	206	Membranous Croup	6
Cerebro Spinal Meningitis	2		

Roll of Teachers

Giving Name, Subject or Grade Taught, Residence,
Date of Election and Salary.

HIGH SCHOOL

Kirk and Anne Sts.

CYRUS W. IRISH, Headmaster, 308 Nesmith street	1885	\$3000
FRANK B. SHERBURNE, Sub Master, 58 Dover street, Greek and Latin	1883	2500
MARY A. WEBSTER, First Assistant, 45 Varney street, English and Mathematics	1859	1000
CHARLOTTE E. DRAPER, 63 Dover street, Cæsar, Astronomy, Geology, Geometry	1870	1000
SUSIE L. D. WATSON, 390 East Merrimack street, United States History and Mathematics	1885	1000
ADELAIDE BAKER, 136 Myrtle street, French	1885	1000
JENNIE L. ALLEN, 947 Middlesex street, Physics and Physiology	1885	1000
EMMA L. BRADLEY, 485 Westford street, French	1890	900
GERTRUDE A. RODLIFF, Chelmsford, Mass., History and English	1890	900
MARIETTA CASSIDY, 4 Fifth avenue, Latin and Algebra	1890	900
GEORGIANA F. VINTON, 52 Fourth street, History, English and Algebra	1872	1000
GRACE M. GOODHUE, 120 School street, Ancient History and Latin	1893	900
BESSIE E. HUNTOON, 64 Warwick street, French and Physiology	1894	900
GRACE WARD, 243 Foster street, Physics and Physical Geography	1895	900
CARL D. BURTT, 93 Fort Hill avenue, Greek and Ger- man	1895	2000

FREDERICK R. WOODWARD, 168 Sixth street, Mathematics	1895	\$2000
HELEN M. LAMBERT, 283 Pawtucket street, Chemistry	1897	900
THOS. F. FISHER, 305 East Merrimack street, Manual Training	1898	1600
MARY G. STEVENS, 27 Nesmith street, English and History	1900	900
MARY H. KILLPARTRICK, 609 Stevens street, English and Commercial Geography	1901	800
MARGARET V. SPEAR, 576 Westford street, French and English	1902	800
MABEL H. HALL, 135 Hildreth street, Physical Culture and Elocution	1909	650
ETHEL W. WHITCOMB, 2 Belmont street, Shorthand and Typewriting	1903	800
EDWIN M. ROBERTS, 74 Stevens street, Manual Training	1904	1200
ETHEL M. EVERETT, 12 Belmont street, English and Algebra	1905	800
ELIZABETH H. MURPHY, 159 White street, French and English	1905	800
ALICE RICHARDSON, 213 Branch street, Algebra and English	1905	800
ALBERT D. MACK, 88 Warwick street, Shorthand	1906	1200
WM. W. DENNETT, 55 Eighteenth street, Algebra and English	1906	1000
ERNEST M. HUNT, 32 Princeton street, Bookkeeping	1907	1500
ALICE H. BACHELLER, 195 Nesmith street, English and Commercial Law	1908	800
GEORGE I. CROSS, 215 Foster street, Bookkeeping	1909	1000
LILLIAN E. EDGERLY, 27 Anne street, Bookkeeping	1909	800
COLBY T. KITTREDGE, 14 Ralph street, Military Instructor	1901	500
FORDYCE COBURN, M. D., Wyman's Exchange, Medical Director	1905	200
KATHARINE H. COGGESHALL, 127 Fort Hill avenue, Secretary	1899	600
ELMER G. BRENNAN, Temp., 107 Warwick street, French and English		1000

RAYMOND W. SHERBURNE, Temp., Tyngsboro, Mass., Mathematics	\$1000
EDITH B. KELLEY, Temp., 249 Branch street, History and English	650
ALBERT E. PEASLEE, Temp., 386 Westford street, Man- ual Training	800
GRACE D. DONOVAN, Temp., 256 Branch street, History and English	650

BARTLETT GRAMMAR SCHOOL

Wannalancit Street

HERBERT D. BIXBY, Master, 80 D street,	1908	\$1400
BELLE A. PRESCOTT, gr. 9, 68 Mt. Washington street	1878	700
CHARLOTTE M. MURKLAND, gr. 8, 117 Bowers street..	1898	700
BLANCHE A. CHENEY, gr. 8, 34 Arlington street	1896	700
AMY L. TUCKE, gr. 7, 111 Butterfield street	1880	700
FRANCES CLARK, gr. 7, Chelmsford Centre, Mass.	1899	700
BELLE F. BATCHELDER, gr. 6, 66 Arlington street	1883	700
MARY E. WALSH, gr. 6, 9 Corner street	1897	700
MARIA W. ROBERTS, gr. 5, 571 Westford street	1875	700
KATHERINE F. FARLEY, gr. 5, 4 Fifth avenue	1907	700
ALICE D. SUNBURY, gr. 4, 142 Wilder street	1899	700
CAROLINE H. McGARVEY, gr. 4, 34 Laurel street	1905	650

BARTLETT PRIMARY SCHOOL

BRIDGET K. SMITH, gr. 3, 117 Stackpole street	1904	\$ 650
SARAH E. AMES, gr. 2, 227 Westford street	1902	650
A. GERTRUDE STILES, grs. 2 and 3, 72 Varney street....	1895	700
ESSIE E. ROCHE, gr. 1, 1835 Middlesex street	1903	650
E. BELLE PERHAM, gr. 1, 90 Riverside street	1908	700

MORRILL SCHOOL

Common and Adams Streets

ANNA M. COURTNEY, Principal, gr. 2, 196 Pawtucket street	1887	\$ 750
AGNES T. COURTNEY, gr. 3, 11 Marsh street	1891	700
ANNA T. COFFEY, gr. 1, Temp., 189 Wilder street		450

CROSS STREET SCHOOL

Cross Street between Fletcher and Mt. Vernon Streets

SARAH E. SCALES, Principal, gr. 3, 14 Porter street	1886	\$ 750
ELLEN M. WHITE, gr. 2, 1057 Middlesex street	1863	700
KATHERINE KELLY, gr. 1, 24 Columbus avenue	1893	700

BUTLER GRAMMAR SCHOOL

Gorham Street

CORNELIUS F. CALLAHAN, Master, 100 Westford st.	1885	\$2000
NELLIE F. MURPHY, gr. 9, 85 Sherman street	1878	700
MARGUERITE J. CRONIN, gr. 9, 228 Plain street	1900	650
MARY E. LANE, gr. 8, Billerica, Mass.	1894	700
SADIE E. TULLY, gr. 8, 105 Westford street	1897	700
DELIA T. BRADY, gr. 7, 183 Chapel street	1883	700
KATE E. KELLEY, gr. 7, 129 Moore street	1883	700
ALICE C. O'BRIEN, grs. 6 and 7, 300 Wilder street	1897	700
ANNIE J. DEVINE, grs. 5 and 6, 110 Carlisle street	1901	650
MARY L. CROWLEY, gr. 6, 6 Appleton Place	1902	650
HELEN L. CLARK, gr. 6, 297 East Merrimack street	1908	650
MARY L. McSORLEY, gr. 5, 34 Nesmith street	1879	700
ETTA G. BURNS, gr. 5, 329 Concord street	1901	650
KATHARINE M. USHER, gr. 4, 465 Parker street	1895	700
JOANNA V. HOAR, gr. 4, 87 Mt. Washington street	1901	650
MARGARET G. HYDE, gr. 4, 5 Floyd street	1902	650
KATHERINE M. JANTZEN, gr. 4, 3 Olive street	1902	650
MARY G. QUINN, gr. 4, 28 Chapel street	1906	650

LYON STREET SCHOOL

Corner Lyon and Central Streets

ALICE T. LEE, Principal, gr. 3, 12 South Walker street	1887	\$ 750
ANNABEL COSTELLO, gr. 2, 293 Nesmith street	1888	700
MARY J. McCARRY, gr. 1, 536 Fletcher street	1881	700
MARY E. CASSIDY, gr. 1, 44 B street	1908	650
LORETTA A. HANNAFIN, gr. 1, Temp., 15 Sargent st.		450

CARTER STREET SCHOOL

Carter Street

ISABELLA T. VINALL, Principal, gr. 3, 1 Glidden avenue	1873	\$ 750
MARGARET J. CONNORS, gr. 2, 48 Walnut street	1894	700
KATHERINE F. BRADY, gr. 2, 173 Chapel street	1897	700
MARY V. JOHNSON, gr. 1, 23 Lombard street	1897	700
DELIA C. MALONEY, gr. 1, 70 Elm street	1901	650

AGAWAM STREET SCHOOL

Agawam and Barrington Streets

MARY A. FAY, Principal, gr. 3, 115 Stackpole street	1889	\$ 750
IDA M. BENNETT, gr. 1, Y. W. C. A.	1908	650
ANNA M. HIGGINS, gr. 2, Temp., North Billerica		450

LONDON STREET SCHOOL

Corner of London and West Streets

ELIZABETH R. MAGUIRE, Principal, gr. 3, 132 Agawam street	1884	\$ 750
MARGARET L. HAGERTY, grs. 1 and 2, 31 Royal street	1908	650
MARY F. HILL, grs. 1 and 2, 94 Midland street	1887	700

WEED STREET SCHOOL

Corner of Weed and Gorham Streets

LILLA M. McEVOY, Principal, gr. 3, 190 Pawtucket st.....	1893	\$ 750
MARY E. CROWLEY, gr. 2, 436 Lincoln street	1905	650
MARY F. DEVINE, gr. 1, 1527 Gorham street	1902	650

EDSON GRAMMAR SCHOOL

Highland Street

CALVIN W. BURBANK, Master, 130 Bowers street	1872	\$2000
FRANCES M. WEBSTER, gr. 9, 45 Varney street	1873	700
ROSALIE T. BURNS, grs. 8 and 9, 39 Whitehead avenue	1878	700
ANNIE E. DONOVAN, grs. 7 and 8, 26 Madison street	1895	700
JENNIE E. ROGERS, gr. 7, 418 Walker street	1904	650
KATE J. HAYES, gr. 6, 15 Floyd street	1879	700
MARGIE F. MARREN, gr. 6, 86 Rolfe street	1886	700
SARAH J. CROSBY, grs. 5 and 6, 12 Simpson Place	1868	700
JULIA A. KENNEY, gr. 5, 73 Fletcher street	1901	650
MARY A. BALCH, grs. 4 and 5, 257 Appleton street	1865	700
JULIA B. RIORDAN, gr. 4, 58 Second avenue	1897	700
LORETTA L. WARD, gr. 4, 220 Fletcher street	1905	650

CHARLES STREET SCHOOL

Charles Street, between Gorham and Chapel Streets

ALICE T. OWENS, Principal, gr. 3, 4 Belmont street	1878	\$ 750
ELLA E. GARDNER, grs. 1 and 2, 225 Branch street	1871	700
ELLEN A. O'CONNELL, grs. 1 and 2, 48 Mead street	1896	700
MARGARET A. HARRAHAN, gr. 1, 32 Marshall street	1882	700

COTTAGE STREET SCHOOL

Corner Cottage and Chapel Streets

ROSE E. MacVEY, Principal, gr. 2, 46 Linden street	1887	\$ 750
ANNIE L. MURPHY, gr. 3, 870 Gorham street	1901	650
E. LAURA MOORE, gr. 1, 21 Kimball avenue	1905	650

ELIOT SCHOOL

Corner Favor and Summer Streets

ELLEN A. STILLINGS, Principal, grs 1 and 2, 24 Bellevue street	1875	\$ 750
ELLEN A. CORBETT, gr. 3, 32 Highland street	1878	700
NELLIE T. O'GRADY, gr. 2, 623 Central street	1881	700
LOYOLA McCANN, gr. 1, 17 Wentworth avenue	1893	700

GREEN GRAMMAR SCHOOL

Merrimack Street

ALBERT L. BACHELLER, Master, 195 Nesmith street....	1874	\$2000
RUTH B. BAILEY, gr. 9, 18 Loring street	1871	700
CLARA A. HANAFORD, gr. 8, 142 Wilder street	1869	700
SADIE F. McCORT, gr. 8, 15 Center street	1901	650
LIZZIE A. NOLAN, gr. 7, 301 Pawtucket street	1876	700
ESTHER G. DONLAN, gr. 7, 455 High street	1897	700
JENNIE E. FAY, gr. 6, 115 Stackpole street	1891	700
MARY M. KEARNEY, gr. 6, 64 Andrews street	1895	700
LENA A. GOOKIN, gr. 5, 20 Walden street	1880	700
CATHERINE F. MCCARTHY, gr. 5, 647 Market street....	1889	700
ELLA J. CARLETON, gr. 4, 1072 Bridge street	1882	700
ANNIE T. DELAY, gr. 4, 87 Mt. Washington street	1900	650
HANNAH M. BARROWS, gr. 4, 19 Newhall street	1908	650

KIRK STREET SCHOOL

Corner Kirk and Lee Streets

ELIZA A. DAVIS, Principal, grs. 2 and 3, Billerica, Mass.	1881	\$ 725
LAURA H. PALMER, grs. 1 and 2, 35 Thirteenth street....	1882	700

CABOT STREET SCHOOL

Corner Cabot and Ford Streets

KATHERINE T. LENNON, Principal, gr. 3, 144 School street	1885	\$ 750
MARY T. WHELLEY, gr. 2, 1 Fenwick street	1897	700
MARY J. MURPHY, gr. 1, 34 Butterfield street	1887	700

CHEEVER STREET SCHOOL

Cheever Street

IDA J. CLARKE, Principal, grs. 2 and 3, 166 Branch street	1887	\$ 750
ANNA A. SARGENT, gr. 1, 223 Liberty street	1864	700
ELIZABETH PROVENCHER, ungraded, 503 Fletcher street	1908	650
EUGENIE V. FRAPPIER, ungraded, Temp., 26 Hampshire street		450

WORTHEN STREET SCHOOL

Worthen Street, between Market Street and Broadway

MARY J. ALGER, Principal, gr. 1, 571 Westford street	1868	\$ 750
ESTHER V. GREEN, gr. 2, 27 Waugh street	1889	700
MARY R. MARREN, gr. 3, 86 Rolfe street	1890	700
MARY E. MEEHAN, gr. 1, 224 Worthen street	1891	700

GREENHALGE GRAMMAR SCHOOL

Ennell Street, Centralville

FREDERICK A. WOOD, Master, 295 Pawtucket street	1906	\$1600
MARY E. TOBIN, gr. 9, 40 Linden street	1906	650
GRACE E. FRYE, gr. 8, Temp., Billerica, Mass.		450
ANNIE V. DONOHUE, gr. 7, 24 So. Loring street	1904	650
MAUDE E. MOODY, gr. 6, 25 Lane street	1906	650
JOSEPHINE S. DUNLAVY, gr. 5, 22 Lagrange street	1908	650
ALICE A. MASTERSON, gr. 4 and 5, 352 Christian street	1892	700
ANNIE L. MAHONEY, gr. 4, 41 Butterfield street	1906	650

GREENHALGE PRIMARY

MARTHA ROGERS, gr. 3, 131 Cumberland road	1895	\$ 700
M. JOSEPHINE DONEHUE, gr. 2, 891 Bridge street	1900	650
BLANCHE E. MARSHALL, gr. 1, 48 Marginal street	1908	650

LAKEVIEW AVENUE SCHOOL

Lakeview Avenue, Centralville

MARGARET J. McCLUSKEY, gr. 3, 246 Methuen street	1890	\$ 750
ALICE E. RAMSAY, gr. 2, 124 Third street	1906	650
ANNA F. JOYCE, gr. 1 and 2, 22 Twelfth street	1906	650
ANNIE E. IRVING, gr. 1, 82 Stone street, Dracut, Mass. ..	1908	650
MARION A. STEVENS, gr. 1, 33 Warwick street	1908	650

HIGHLAND GRAMMAR SCHOOL

Pine Street

CHARLES W. MOREY, Master, 14 Belmont street	1880	\$2000
FLORA I. MOFFITT, gr. 9, 502 Wilder street	1887	700
MARY F. FOSS, gr. 9, 248 Foster street	1891	700
ABBIE F. WOODWARD, gr. 8, 157 Dartmouth street	1869	700
ESTELLE L. WHITNEY, gr. 8, 13 Oakland street	1885	700
LEONORA K. BATTLES, gr. 7, 21 Chester street	1895	700
ANNA A. BURNHAM, gr. 7, 14 Belmont street	1894	700
LUELLA A. WARDWELL, gr. 6, 13 Oakland street	1870	700
MINNIE C. GRAY, gr. 6, 106 Liberty street	1890	700
GRACE R. SANDERS, gr. 5, 67 South Loring street	1897	700
LULU TURNER, gr. 5, 418 Walker street	1900	650
GRACE F. WARD, gr. 5, 6 Appleton place	1893	700
C. ETHEL HALE, gr. 4, 15 Robbins street	1906	650
MABEL E. BROWN, gr. 4, 172 Branch street	1901	650
ARVILLA L. READER, gr. 4, 216 Appleton street	1871	700

FRANKLIN SCHOOL

Corner Branch and Middlesex Streets

SARAH C. FISKE, Principal, gr. 3, 246 Appleton street	1866	\$ 750
LIZZIE S. LOWE, gr. 2, 13 Nichols street	1857	700
MARION J. STEVENSON, grs. 1 and 2, 63 Princeton street	1878	700
KATE G. JONES, gr. 1, 240 Jewett street	1880	700

PINE STREET SCHOOL

Corner Pine and Gibson Streets

CARRIE J. BAILEY, Principal, gr. 3, 16 Loring street	1884	\$ 750
GRACE I. WASHBURN, gr. 2, 233 Westford street	1897	700
HELEN D. SWAIN, gr. 1, 5 Mason street, Nashua N. H.,	1904	650
MINNIE E. COBURN, gr. 1, Temp., 342 Westford street		450

DOVER STREET SCHOOL

Dover Street, between Middlesex and Grove Streets

CLARA B. HORNE, Principal, gr. 3, 106 Chestnut street	1877	\$ 750
CLEMENTINE H. BOWERS, gr. 2, 18 Loring street	1876	700
BERTHA GARDNER, gr. 1, 32 Robbins street	1887	700

MIDDLESEX VILLAGE SCHOOL

Middlesex Street, corner Cornell Street

HARRIET F. WAKEFIELD, Principal, grs. 5 and 6, 2 Loring street	1889	\$ 750
KATHERINE G. EGAN, grs. 3 and 4, 17 Princeton street	1904	650
GERTRUDE E. DANE, grs. 1 and 2, 234 Gibson street	1905	650

POWELL STREET SCHOOL

Powell Street, near Liberty Street

VIOLA A. HAMBLETT, Principal, gr. 1 and 2, 58 Bellevue street	1876	\$ 725
ELLEN J. PIPER, grs. 2 and 3, 55 Norcross street	1894	700

ABRAHAM LINCOLN GRAMMAR SCHOOL

Chelmsford Street

JAMES L. MELLEN, Master, 74 Pentucket avenue	1893	\$2000
MARGARET M. SPARKS, gr. 9, 169 Fort Hill avenue	1894	700
GRACE SCRIBNER, gr. 8, 190 Liberty street	1893	700
IRMA V. HODGMAN, gr. 7, 632 Westford street	1897	700
BRIDE T. SWEENEY, gr. 7, 138 Pleasant street	1900	650
ALICE L. GOOKIN, gr. 6, 824 Rogers street	1902	650
ESTHER M. DOWNING, gr. 6, 27 Waugh street	1904	650
HELEN J. O'HEARN, gr. 5, 649 Westford street	1900	650
MARGARET G. McDONALD, gr. 5, 397 Broadway	1904	650
ELLEN L. FLOYD, gr. 4, 124 Stevens street	1887	700
ELLA E. PRESCOTT, gr. 4, 68 Smith street	1894	700

Primaries in Lincoln School Building

ELSIE M. PUFFER, gr. 1, 942 Middlesex street	1901	650
LILLIAN A. STROUT, gr. 1, 95 So. Loring street	1906	650

LAURA E. LEE SCHOOL

Corner Plain and Powell Streets

FLORA H. SPRAGUE, Principal, gr. 3, 589 School street	1882	\$ 750
REBECCA A. GARDNER, gr. 2 and 3, 75 Pine street	1906	650
LILLA M. STANLEY, gr. 2, 2 Horn street	1897	700
SADIE M. DEANE, grs. 1 and 2, 82 B street	1902	650
LENA M. ROBINSON, gr. 1, 68 So. Walker street	1898	700

HOWARD STREET SCHOOL

Howard Street, between Chelmsford and Hale Streets

MARION E. GREENE, Principal, gr. 3, 96 Pine street.....	1884	\$ 750
MARGARET S. JAMIESON, gr. 2, 112 Shaw street	1904	650

GRAND STREET SCHOOL

Grand Street, between Westford and Middlesex Streets

JENNIE M. BENNETT, gr. 2, 2 Bellevue street	1885	\$ 700
CORINNA G. COVER, gr. 1, 16 Lombard street	1901	650

MOODY GRAMMAR SCHOOL

Corner High and Rogers Streets

WILLIAM S. GREENE, Master, 214 Third street	1883	\$2000
BERTHA M. ROWLANDSON, gr. 9, 11 Holyrood ave.	1891	700
CARRIE A. PAUL, gr. 8, 42 Huntington street	1891	700
IDA L. SAMUELS, gr. 7, 56 Fifth avenue	1898	700
NELLIE C. MAHONEY, gr. 7, 17 North street	1898	700
ELLA M. BREEN, gr. 6, 23 Marsh street	1893	700
MARTINA F. McMAHON, gr. 6, 33 Mead street	1905	650
FRANCES E. HARDMAN, gr. 5, 18 Astor street	1873	700
FRANCES E. GARRITY, gr. 5, 190 Shaw street	1874	700
FLORA A. OWEN, gr. 4, 42 Huntington street	1900	650
ANASTASIA E. DOWNING, gr. 4, 27 Waugh street	1908	650

POND STREET SCHOOL

Corner High and Pond Streets

WINIFRED C. HAGGERTY, Principal, gr. 2, 52 Huntington street	1884	\$ 750
ADELAIDE CROWLEY, gr. 1, 115 Fort Hill avenue	1894	700
GERTRUDE SEEDE, gr. 3, 85 Dover street	1906	650

HIGH STREET SCHOOL

High Street, between Chestnut and Everett Streets

CLARA A. EMERSON, Principal, gr. 3, 216 Appleton street	1869	\$ 750
MARY I. HALLORAN, gr. 2, 546 East Merrimack street	1908	650
MAUDE E. GREEN, gr. 1, 238 East Merrimack street	1900	650

SYCAMORE STREET SCHOOL

Sycamore Street

FLORENCE E. ROWELL, Principal, grs. 2 and 3, 60 Porter Terrace	1900	\$ 675
ELIZABETH B. DAME, grs 1 and 2, 178 First street	1902	650

PAWTUCKET GRAMMAR SCHOOL

Mammoth Road, Pawtucketville

WILLIAM P. BARRY, Master, 1280 Middlesex street	1887	\$2000
ELLEN M. MacDONALD, gr. 9, 180 Pawtucket street	1878	700
CARRIE M. HART, gr. 8, 16 Varney street	1887	700
M. ISABELLA PHELPS, gr. 7, 50 Lamb street	1908	650
CHARLOTTE C. WALSH, gr. 6, 76 Mt. Vernon street	1902	650
GOLDIE M. GARDNER, gr. 5, 15 Columbus avenue	1898	700
MAUDE M. HARDY, gr. 4, 25 Waugh street	1901	650

NEW MOODY STREET SCHOOL

New Moody Street

ELLEN M. HOLDEN, Principal, gr. 3, 2191 Lakeview avenue	1876	\$ 750
NELLIE F. DAVIDSON, grs. 2 and 3, 559 Fletcher street	1891	700
EUGENIA L. HOGAN, gr. 2, 106 Avon street	1889	700
ALICE B. BESSE, grs. 1 and 2, 581 Rogers street	1891	700
ANNA I. CASSIDY, gr. 1, 4 Fifth avenue	1902	650
ELIZABETH A. HART, gr. 1, 16 Varney street	1886	700

LEXINGTON AVENUE SCHOOL

Lexington Avenue, near Varnum Avenue

HELEN KOHAWN, ungraded, 63 Thirteenth street	1877	\$ 725
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RIVERSIDE GRAMMAR SCHOOL

Woburn Street, Wigginvillle

HARRIET L. WHEELER, Principal, grs. 7 and 8, 14 Phillips street	1900	900
CHRISTINE M. KANE, grs. 5 and 6, 339 High street	1908	650
FRANCES J. CUNNINGHAM, gr. 4, 517 Rogers street	1906	650

RIVERSIDE PRIMARY SCHOOL

ETTA M. SMITH, gr. 2, 1118 Lawrence street	1906	650
ALICE E. LEAHEY, gr. 1, 35 Oak street	1908	650
MARY E. RICHARDSON, Temp., gr. 3, 215 Smith street		450

TRAINING SCHOOL

Charles and Lawrence Streets

(Telephone 531-3)

GERTRUDE EDMUND, Principal, Y. W. C. A.,	1895	\$2000
MABEL W. EWINGS, 3 Astor street	1891	900
ADDIE B. MERRILL, 465 Bridge street	1892	900
HELEN M. SHEAN, 169 Fort Hill avenue	1891	900
MARGARET C. FOX, gr. 9, 8 Eddy street	1900	650
GRACE C. DELANY, gr. 8, 791 Broadway	1900	650
MABEL H. ELA, 59 Thayer street, tel. 2562-1	1900	650
MARY E. SNOW, gr. 1, 89 School street	1901	650
KATHERINE M. TOBIN, Temp., 40 Linden street		450
LILLIAN E. ALISTER, 15 Staveley street		
FLORENCE E. ARCHIBALD, Y. W. C. A.		
MARY ALICE COCHRANE, 230 Cabot street		
RUTH CROWELL, 71 Fort Hill avenue		
JULIA M. DRISCOLL, 47 Grace street		
MARIANNA L. DONOVAN, 256 Branch street		
MARGARET T. DONOVAN, 42 Claire street		
MYRTLE M. KILLPARTRICK, 609 Stevens street		
ALICE G. McGILLY, 112 Concord street		
OLIVE J. PALM, 255 Plain street		
MARY R. SEERY, 237 Tenth street		
MILLIE A. SEVERANCE, 302 Stevens street		
JULIA G. SLATTERY, 65 Arlington street		
HELEN M. WHITCOMB, 2 Belmont street		

CENTRAL STREET SCHOOL

Central Street, opposite Hudson Street

ELIZA COWLEY, Principal, gr. 3, 484 Rogers street	1857	\$ 750
ELIZABETH G. LAWLER, gr. 2, 260 High street	1897	700
ANNA T. COBURN, gr. 2, 39 Arlington street	1904	650
HELEN A. DRURY, gr. 1, 44 Walnut street	1897	700

AMES STREET SCHOOL

Corner Lawrence and Ames Streets

MARY E. DREW, Principal, gr. 2, 36 Wamesit street	1868	\$ 750
KATE F. MURPHY, gr. 3, 870 Gorham street	1885	700
EDITH FARRINGTON, gr. 1, 182 Perry street	1905	650

VARNUM GRAMMAR SCHOOL

Myrtle Street, Centralville

(Telephone 2326-2)

HENRY H. HARRIS, Master, 93 Eleventh street	1893	\$2000
ELIZABETH C. KENNEDY, gr. 9, 106 Durant street	1884	700
MARY F. WING, gr. 9, 3 Myrtle street	1879	700
AGNES-BAILEY, gr. 8, 53 Third street	1900	650
DAISY B. MacBRAYNE, gr. 8, 24 Beech street	1900	650
GRACE W. BALCH, gr. 7, 117 Third street	1894	700
ELIZABETH M. BUTLER, gr. 7, 196 Third street	1901	650
MARY A. FAY, gr. 7, 303 Tenth street	1898	700
AGNES T. FAY, gr. 6, 303 Tenth street	1891	700
ROSE A. DOWD, gr. 6, 237 Tenth street	1884	700
ELIZABETH F. GARRA, gr. 6, 109 Bartlett street	1893	700
ALICE R. KEESE, gr. 5, 107 Warwick street	1881	700
ADA E. HOOLE, gr. 4, 173 Warren street	1894	700
MARGARET F. HOWE, gr. 4, 208 South street	1900	650
JULIA WILLIAMS, gr. 4, 156 Sixth street	1886	700

WEST SIXTH STREET SCHOOL

West Sixth Street, between Coburn and Jewett Streets, Centralville

STELLA J. ALLEN, Principal, gr. 3, 115 Third street	1879	\$ 750
ELIZABETH F. LAMERE, gr. 2, 63 Canton street	1887	700
MARION S. KEYES, grs. 1 and 2, 102 Third street	1888	700
MARY J. CALLAHAN, gr. 1, 117 Durant street	1895	700

TENTH STREET SCHOOL

Corner Tenth and Varnum Streets, Centralville

MARY F. BEANE, Principal, gr. 3, 212 Tenth street	1879	\$ 750
FANNIE H. MURPHY, gr. 2, 42 Twelfth street	1889	700
ALICE A. HOLTHAM, grs. 1 and 2, 1107 Bridge street	1887	700
ELLA A. BAILEY, gr. 1, 205 Tenth street	1869	700
MABEL A. METCALF, gr. 1, 93 Vernon street	1908	650

BILLINGS STREET SCHOOL

ANNIE M. ROBBINS, Principal, grs. 2 and 3, 62 Twelfth street	1895	\$ 750
ETTA FOYE, grs. 1 and 2, 127 Durant street	1901	650
ELIZABETH H. SEEDE, gr. 1, 85 Dover street	1906	650
ALICE O. STICKNEY, gr. 1, Temp., 599 School street		450

WASHINGTON GRAMMAR SCHOOL

Lang Street, opposite Inland

JOHN E. BARR, Master, gr. 7, 53 Beech street	1906	\$1100
HELEN A. DOW, gr. 6, 149 B street	1905	650
ESTHER M. GREENE, gr. 5, 179 Warwick street	1906	650
SUSAN C. GRIFFIN, gr. 4, 580 School street	1906	650

KINDERGARTENS**AGAWAM STREET**

SARAH G. SPARKS, Principal, 59 Elm street	1894	\$ 550
KATHARINE M. CROWLEY, 115 Fort Hill avenue	1908	500

BARTLETT

HELEN W. NOYES, Principal, 49 Nesmith street	1896	550
EDITH A. ANDREWS, 77 Fort Hill avenue	1897	500

CHARLES STREET

MABEL D. NICKERSON, Principal, 136 Chestnut street	1893	550
S. ALICE KNAPP, 336 E. Merrimack street	1899	500

CHAPEL STREET

MARIETTA G. GORMLEY, Principal, 22 Lyon street	1895	550
KATHERINE E. EARLEY, 181 Pleasant street	1896	500

DOVER STREET

ELIZABETH A. WILSON, Principal, 15 South Canton street	1893	550
ELLA M. PENN, 262 London street	1901	500

FRANKLIN

N. GRACE TAYLOR, Principal, 11 Ware street	1895	550
HORTENSE M. LAMERE, 6 West Eleventh street	1899	500

LAURA E. LEE

EDITH A. HOWITT, Principal, 52 Myrtle street	1897	550
ALICE F. SEETON, 158 Mammoth road	1901	500

LINCOLN

ELSIE M. CRAGIN, Principal, 114 South Walker street	1895	\$ 550
GERTRUDE A. ROBERTS, 74 Stevens street	1897	500

MOODY

MARY C. WALKER, Principal, 100 Appleton street	1893	550
GERTRUDE B. CROWLEY, 115 Fort Hill avenue	1909	400

PAWTUCKET

MARIETTA KING, Principal, 205 Stackpole street	1895	550
S. HORTENSE TABOR, 82 Riverside street	1896	500

PINE STREET

LOUIE I. SMITH, Principal, 11 Edson street	1895	550
HELEN S. LIVINGSTON, Temp., 28 Robbins street		350

VARNUM

NETTIE M. CONANT, Principal, 196 Third street	1892	550
CLARA M. EVERETT, Y. W. C. A.	1896	500

SUPERVISOR OF KINDERGARTENS

ANNA W. DEVEREAUX, Tel. 2261-1, 14 Park street	1893	500
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MUSICAL DIRECTOR

FREDERICK O. BLUNT Tel. 2522-1, 50 Chelmsford st.	1898	1250
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ASSISTANT IN MUSIC

JOSEPHINE C. COBURN, Tel. 423-1, 28 Bellevue street	1903	800
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SUPERVISORS OF DRAWING

OLIVE E. UNDERHILL, 117 Branch street	1887	750
ADDIE E. EDWARDS, Tel. 1128-1, 57 Pine street	1907	750

TEACHER OF SEWING

IDA J. FLINT, Tel. 2641-2, 200 Liberty street	1880	800
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TRAINING SCHOOL GRADUATES

CLASS OF JUNE, 1907

Minnie E. Coburn, 342 Westford street.
Anna T. Coffey, 189 Wilder street.
Florence R. Foote, 28 Wannalancit street.
Eugenie V. Frappier, 26 Hampshire street.
Grace E. Frye, 176 School street.
Loretta A. Hannafin, 15 Sargent street.
Anna M. Higgins, North Billerica.
May E. P. Lowney, 40 Crowley street.
M. Alice Mather, 112 Fort Hill avenue
Anna T. McCarron, 216 High street.
Mary Richardson, 215 Smith street.
Katherine M. Tobin, 40 Linden street.

CLASS OF JUNE, 1908

Susan F. Burbank, 130 Bowers street.
Clotilda A. Delany, 791 Broadway.
Alice M. French, Y. W. C. A.
Elizabeth A. Gilinson, 250 Plain street.
Fannie G. Hobbs, 5 Astor street.
Cora E. Jones, Y. W. C. A.
Eleanor J. LeLacheur, 126 Avon street
Charlotte O. Lowe, North Chelmsford.
Ellen F. Lynch, 11 Salem street.
Charlotte A. Parsons, 485 Westford street.
Alice O. Stickney, 599 School street.
Grace M. Thurber, 52 Fourth street.

CLASS OF JUNE, 1909

Lena Collins, 1106 Mammoth road, Collinsville.
Elizabeth G. Common, 109 Beech street.
Sadie A. Connor, 73 Pleasant street.
Elizabeth A. Conway, 219 Church street.
Frances L. Donovan, 168 Shaw street.
Kathleen E. Driscoll, 47 Grace street.
Laura F. Greene, 179 Warwick street
Mary J. Moynahan, 110 Tilden street
Katherine P. O'Brian, 28 West Adams street.
Edith T. Sanborn, 260 Mansur street.
Leona M. Small, 46 Whitney avenue.
Louise C. Thomas, 40 West Sixth street.
Rena J. Thomas, Blackstone, Mass.

TEACHERS' CERTIFICATES

Granted since January 1, 1906

First Grade

Fred K. Bryant, Harvard, '06, 154 Andover street.
Elmer G. Brennan, Dartmouth, '04, 107 Warwick street.
Albert E. Peaslee, N. H. College, '09, 386 Westford street.
Raymond W. Sherburne, Dartmouth, '08, Tyngsboro, Mass.

Second Grade

Florence R. Foote, Wellesley, '06, 28 Wannalancit street.
M. Alice Mather, Wellesley, '06, 112 Fort Hill avenue.
Alice O. Stickney, Wellesley, '07, 599 School street.
Violet Stocks, Smith, '07, 141 Parkview avenue.
Susan F. Burbank, Boston University, '02, 130 Bowers street.
Rena J. Thomas, Smith, '08, Blackstone, Mass.
May D. Stone, Mt. Holyoke, '08, 63 Royal street.
Millie A. Severance, Smith, '09, 302 Stevens street.
Helen M. Whitcomb, Smith, '08, 2 Belmont street.
Anna C. Chandler, Wellesley, '09, 5 Concord Terrace, South Framing-
ham, Mass.

Fourth Grade

Helen S. Livingston, Lowell Normal, '05, 28 Robbins street.
Marion A. Harrison, Lowell Normal, '05, 29 Whitney avenue.
Alice M. Hill, Lowell Normal, '06, 76 Durant street.
Marion C. Flagg, Lowell Normal, '06, Merrimac, Mass.
Grace E. Holden, Lowell Normal, '06, 61 Cambridge street, Lawrence.
Vera M. Wood, Lowell Normal, '06, 51 Whitney avenue.
Hattie G. Hills, Lowell Normal, '06, 38 Amherst street, Nashua.
Ethel May Stevens, Lowell Normal, '06, 418 Walker street.
Nina B. Wood, Lowell Normal, '01, 112 D street.
Ethel H. Church, Lowell Normal, '07, 151 Princeton street.
Helen B. Webster, Lowell Normal, '08, 69 Myrtle street.
Myra L. Stacy, Lowell Normal, '08, Haverhill, Mass.
Josephine A. Boynton, Lowell Normal, '03, and Smith College, '08, 101
Livingston avenue.

SALARIES OF TEACHERS

HIGH SCHOOL

Head Master	\$ 3000
First Sub-Master	2500
Men Teachers .....	.800 to 2000
Women Teachers, first year	650
Women Teachers, second year	700
Women Teachers, third year and thereafter .....	.800 to 1000

GRAMMAR SCHOOLS

Masters, (yearly increase, \$100)	\$1300 to 2000
Teachers, first 10 years, \$650; after ten years	700
Teachers of Drawing	750
Teachers of Music .....	.800 to 1250
Teacher of Sewing	800

PRIMARY SCHOOLS

Principals of three or more rooms \$700; after ten years	\$ 750
Principals of two rooms \$675; after ten years	725
Teachers \$650; after ten years	700

TRAINING SCHOOL

Principal	\$2000
Three Assistants	900

KINDERGARTENS

Principals	\$ 550
Assistants	500

TEMPORARY TEACHERS

Men Teachers per day	\$ 3.00
Women Teachers	2.50
Kindergartens	1.75

TEXT BOOKS USED IN THE PUBLIC SCHOOLS

PRIMARY SCHOOLS

First Readers, Many Series	Davis's Stories of American History
Second Readers, Many Series	Carroll's Around the World, Book I
Advanced Second and Third Readers, Many Series	Aldine Reading Chart
Franklin Primary Arithmetic	American Music Readers
Prince's Arithmetic by Grades	American Music Chart
Nichols' Graded Lessons in Number	Blaisdell's Child's Book of Health.
Wilson's Historical Reader	Whitehouse's Writing Books

GRAMMAR SCHOOLS

Third Readers, Several Series	Chancellor's Spellers
Fourth Readers, Several Series	Quincy Word List
Fifth Readers, Several Series	Reed's Word Lessons
Scudder's Fables and Folk Stories	The Mother Tongue, Books I and II
DeFoe's Robinson Crusoe	Frye's Primary Geography
Burroughs' Birds and Bees	Frye's Common School Geography
Hawthorne's Wonder Book	Gordy's History of the United States
American Literature, Masterpieces	Scudder's History of the United States
Southworth-Stone Arithmetics	Fiske's History of the United States
Carpenter's Geographical Readers	Montgomery's History of the United States
Carroll's Around the World	Tappan's Our Country's Story
Lewis's First Manual of Composition	Guerber's Story of the Greeks
Union Series of Physiologies	Guerber's Story of the English
Coleman's Physiologies	Ashley's Citizen and Government
Gulick Hygiene Series, Books I and II	Worcester's, Webster's and Clarendon Dictionaries
Wentworth's First Steps in Algebra	Werner Mental Arithmetic
Worcester's Speller	Whitehouse's Writing Books
The Morse Speller	American Music Readers
The Rational Spelling Book	

HIGH SCHOOL

Chemistry, Physics and Other Sciences

Experimental Chemistry, Newell	Lessons in Astronomy, Young
Qualitative Analysis, Irish	Physics, Hoadley
A Text-Book of Physics, Hall-Bergen	Physiology, Kellogg
Botany, Gray	Physiology, Blaisdell
Geology, Le Conte	Physiology, Martin
Elements of Chemistry, Williams	Tarr's Physical Geography
Herbarium, Wilson	Geology, Brigham

English

English Composition, Shaw	Silas Marner, Eliot
Composition and Rhetoric, Scott and Denney	Sir Roger de Coverley Papers, Addison
Hill's Principles of Rhetoric	Ancient Mariner, Coleridge
Foundations of Rhetoric, Hill	Chaucer to Arnold, George
Lessons in English, Buehler	Conciliation with America, Burke
Composition Rhetoric, Brooks and Hubbard	Ivanhoe, Scott
Enlarged Practice Book, Hitchcock	Macbeth, Shakespeare
Introduction to English Literature, Pancoast	Lady of the Lake, Scott
Story of the Odyssey, Church	Merchant of Venice, Shakespeare
Tales from Shakespeare, Lamb	Milton and Addison, Macaulay
Iliad, Pope	Milton's Lyrics
Iliad, Bryant	Idylls of the King, Tennyson
Julius Cæsar, Shakespeare	Vicar of Wakefield, Goldsmith
	Life of Oliver Goldsmith, Irving
	Vision of Sir Launfal, Lowell

French

College Plays, Bocher	Le Siege de Berlin
Colomba, Merimee	Class-book of French Composition, Blouet
Le Cid, (Corneille)	French Dictionary, Heath
Contes et Legendes, II, Guerber	French Grammar, Grandgent
Douze Contes Nouveaux, Fontaine	French Grammar, Fraser and Squair
French Reader for Beginners, Kuhns	French Grammar, Worman
La Chute, Hugo	French Lyrics, Bowen
Le Tour de la France par deux Enfants, Bruno	French Reader, Super
La Mare au Diable, Sand	Exercises, Grandgent, III, IV, V
La Famille de Germandre, Sand	Exercises for French Composition, Kimball
La Fontaine's Fables (American Book Company)	

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| La Tache du Petit Pierre | French Syntax and Composition |
| Le Voyage de Monsieur Perrichon, | Bouvet |
| Labiche | Le Conscriit de 1813, Erckmann- |
| French Composition, Grandgent | Chatrian |
| Sight Reading, Rogers | Readings from French History, Super |
| La Grammaire, Labiche | Selected Stories, Daudet |
| Scenes de la Revolution | L'Expedition de Bonaparte en |
| Francaise, Lamartine | Egypte, Theirs |
| Le Dix Septieme Siecle | French Commercial Reader, Pitman |
| Grammaire Francaise, Larive et | Intermediate French, Jaques |
| Fleury, 2me An. | |

German

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| Hoher als die Kirche, Clary | German Dictionary, Heath |
| German Composition Fasnacht | Der Zerbrochne Krug, Joynes |
| Traumereien, Leander | Schiller's Der Neffe Als Onkel |
| Heise's L'Arrabbiata | Joynes Meissner's German |
| Harris' German Lessons | Grammar |
| Wesselhoefts' German Composition | Riehl's Der Fluchder Schonheit |
| Harris' German Composition | Gould's Tales from Hauff |
| Immensee, Storm's | Schiller's Jungfrau von Orleans |

Greek

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|-----------------------------|----------------------------------|
| Anabasis, Xenophon | Greek Lexicon, Liddell and Scott |
| Greek Composition, Pearson | Greek Lexicon, White |
| Greek Composition, Woodruff | Greek Reader, Goodwin |
| Greek Grammar, Goodwin | Homer's Iliad, Seymour |
| Greek Lessons, White | Homer's Odyssey, Seymour |

History

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|----------------------------------|-----------------------------|
| Age of Pericles, Grant | Fiske's School Histories |
| American History, Montgomery | A Short History of Ancient |
| Ancient History, Myers | Times, Myers |
| English History, Montgomery | Greek History, Morey |
| Greek Civilization, Mahaffy | Roman History, Morey |
| History of England, Coman and | Greek History, Botsford |
| Kendall | Greek Tragedians, Church |
| History of English People, Green | Johnston's American History |
| English History, Higginson and | Plutarch's Lives, Kaufman |
| Channing | Source Book, Hart |
| European History, Adams | U. S. History, McMaster |

Latin

Cæsar, Allen and Greenough	Latin Lexicon, White
Cicero, Allen and Greenough	Nepos, Barss
Gate to Cæsar, Collar	New Latin Composition
Latin Composition, Part I, Daniell.	Ovid, Allen and Greenough
Latin Composition, Part II, Daniell.	Sallust
Latin Composition, Collar	Virgil, Allen and Greenough
Latin, for Sight Reading, Tomlinson	Virgil, Brice
Latin Grammar, Allen and Greenough	Viri Romæ, Rolfe
	First Year Latin, Collar and Daniell

Mathematics

Academic Algebra, Wells	Elementary Algebra, Wentworth
Arithmetic, Wentworth and Hill	Geometry, Wells
Geometry, Plane and Solid, Wentworth	Higher Algebra, Wells
Essentials of Algebra, Wells	Trigonometry, Wentworth

Commercial

Commercial Geography, Adams	Commercial Arithmetic, Williams and Rogers
Mental Arithmetic, Williams and Rogers	Commercial Law, White
Business Correspondence, Williams and Rogers	Bookkeeping and Business Practice, Williams and Rogers
Seventy Lessons in Spelling, Williams and Rogers	Shorthand, Gregg

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS OF THE CITY OF LOWELL
FOR THE YEAR ENDING JUNE 30, 1909.

SCHOOLS	LOCATION		Whole No. Enrolled		No. pupils belonging Dec. 1909		Whole No. pupils on time books since Sept. 1, 1908		Average No. pupils belonging to school		Average daily attendance		No. ent'd not rec. from any other public school	Rec'd from other public schools of lower grade	Rec'd from other public schools of same grade	Sent to other public schools of higher grade	Sent to other public schools of same grade	Per cent. of attendance	Number of class rooms in regular use	Number of seats or sittings in these rooms	Number of half days of school, counting each room as a "school"				
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total													
High	563	651	1214	533	623	1156	563	651	1214	522	619	1141	501	588	1089	101	336	0	0	0	95	34	1185	125-0	
Bartlett (Gr.) Primaries	242	268	510	221	239	460	246	273	519	211	235	446	197	217	414	50	94	9	34	29	93	11	602	383-9	
Bartlett	141	110	251	113	100	213	149	119	268	123	94	217	115	85	200	63	20	17	62	22	92	5	256	174-5	
Morrill	77	47	124	60	26	86	83	53	136	60	31	91	57	28	85	87	0	12	20	12	93	3	146	114-8	
Cross St.	51	51	102	37	56	93	57	60	117	42	45	87	40	41	81	8	2	5	23	9	93	3	133	105-0	
Totals for Primaries	269	208	477	210	182	392	289	232	521	225	170	395	212	154	366	158	22	34	105	43	93	11	585	394-3	
Butler (Gram.) Primaries	366	357	723	337	315	652	350	366	746	338	328	666	320	301	621	43	155	23	74	27	93	16	795	558-4	
Agawam St.	64	54	118	57	45	102	68	54	122	62	57	119	57	46	103	26	18	5	33	5	92	3	139	105-9	
Carter St.	106	98	204	87	83	175	106	101	207	92	92	184	83	83	166	59	0	3	38	24	89	6	280	174-5	
Corner of London and West Sts.	61	85	146	73	64	137	95	75	170	69	59	128	65	53	118	146	0	24	30	17	92	3	114	105-7	
Lyon St.	104	96	200	95	94	189	117	106	223	91	88	179	83	78	161	6	23	39	23	39	23	90	5	247	172-4
Cor. Central and Lyon Sts.	62	68	130	53	52	105	63	69	133	53	54	107	48	49	97	4	0	2	26	12	90	3	168	104-7	
Cor. Gorham and Weed Sts.	397	401	798	365	343	708	449	405	854	367	350	717	336	309	645	299	24	57	166	81	90	19	978	663-4	
Totals for Primaries																									

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS—Continued

Edson (Gram.) Primaries	Cor. Highland and South Sts.	260	277	537	224	258	482	272	292	564	238	258	496	222	237	459	27	111	27	16	15	93	11	559	3883	
	Charles St.	88	83	171	78	75	153	103	94	197	94	78	172	93	67	160	44	5	26	35	20	93	4	192	1414	
	Cor. Cottage and Chapel Sts.	74	55	129	57	46	103	86	70	156	63	51	114	57	46	103	43	8	28	36	28	90	3	164	1056	
	Eliot	Cor. Sumner and Favor Sts.	112	87	199	73	63	136	123	98	221	84	68	152	78	62	140	100	1	25	41	41	93	4	220	1326
	Totals for Primaries		274	225	499	208	184	392	312	262	574	241	197	438	228	175	403	187	14	79	112	89	92	11	576	3796
Green (Gram.) Primaries	Merrimack St. opp. Colburn st.	315	315	630	213	225	438	312	289	601	236	244	480	223	230	453	164	93	29	30	14	94	12	612	4217	
	Cor. Cabot and Ford Sts.	77	60	137	55	34	89	82	65	147	50	40	90	44	33	77	104	0	10	25	6	88	3	168	1065	
	Cor. Cheever and Tucker Sts.	129	87	216	64	45	109	133	95	228	76	42	118	51	55	106	216	0	12	27	8	90	4	201	1061	
	Cor. Kirk and Lee Sts.	56	54	110	36	38	74	67	58	125	34	28	62	33	25	58	65	1	18	13	14	94	2	111	706	
	Worthen St.	101	91	192	71	69	140	116	105	221	70	65	135	67	61	128	109	0	17	31	13	95	4	215	1411	
	Totals for Primaries	363	292	655	226	186	412	398	323	721	230	175	405	195	174	369	494	1	57	96	41	91	13	695	4243	
Greenhalge (Gr.) Primaries	Ennell St.	158	163	321	154	138	292	166	170	336	138	141	279	130	129	259	56	75	13	17	19	93	7	336	2400	
	Ennell St.	60	66	126	54	52	106	65	69	134	56	53	109	52	48	100	14	0	8	24	10	91	3	144	1059	
	Lakeview Ave. cor. Ferry Lane	119	106	225	103	66	169	136	109	245	101	81	182	90	71	161	62	0	20	30	18	88	4	214	1412	
	Totals for Primaries	179	272	451	157	118	275	201	178	379	157	134	291	142	119	261	76	0	28	54	28	90	7	358	2471	
	Cor. Pine and Wilder Sts.	380	377	757	262	300	562	398	397	795	352	360	712	332	333	665	67	117	38	76	19	93	18	763	6338	
High'd (Gram.) Primaries	Dover St.	64	56	120	61	46	107	69	60	129	59	49	108	54	45	99	17	21	9	32	8	92	3	153	1062	
	Cor. Pine and Gibson Sts.	52	56	108	53	54	107	52	58	110	44	49	93	41	44	85	20	14	6	27	8	90	3	168	1056	
	Franklin	73	62	135	65	63	128	81	76	157	65	62	127	58	58	116	31	19	29	33	17	91	4	187	1412	
	Powell St.	40	49	89	41	46	87	45	55	100	34	38	72	31	34	65	22	9	21	24	11	91	2	105	706	
	Totals for Primaries	229	223	452	220	209	429	247	249	496	202	198	400	184	181	365	90	63	65	116	44	91	12	613	4236	

**SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS OF THE CITY OF LOWELL
FOR THE YEAR ENDING JUNE 30, 1909.**

SCHOOLS	LOCATION	Whole No. Enrolled		No. pupils belonging Dec. 1909		Whole No. pupils on time books since Sept. 1, 1908		Average No. pupils belonging to school		Average daily attendance		No. ent'd not rec. from any other pub. school	Rec. from other pub. schools of lower grade	Rec'd from other pub. schools of same grade	Sent to other public schools of higher grade	Sent to other public schools of same grade	Per cent. of attendance in regular use	Number of class rooms	Number of seats or things in these rooms	Number of half days of school, counting each room as a "school"					
		Males	Females	Total	Males	Females	Total	Males	Females	Total	Males										Females	Total			
A. Lincoln (Gr. Primaries	Chelmsford St., near Lincoln St.	200	246	506	238	212	450	270	258	528	236	229	465	218	215	433	25	102	22	32	12	93	11	543	3883
Howard St.	Howard St., near Hale St.	83	77	160	71	79	150	91	86	177	76	69	145	69	65	134	32	2	15	42	6	91	4	210	1412
Laura Lee	Cor. Chelmsford and Plain Sts.	111	107	218	107	93	200	129	117	246	101	97	198	94	85	179	22	21	28	57	32	90	5	280	1765
Lincoln	In Lincoln Grammar School Bldg. ..	53	51	104	42	40	82	56	53	109	41	42	86	38	37	75	52	15	5	0	5	85	12	112	706
Totals for Primaries		217	235	482	220	212	432	276	256	532	221	208	429	201	187	388	106	38	48	99	43	90	11	602	3883
Moody (Gram.) Primaries	Cor. Rogers and High Sts.	276	215	491	210	184	394	276	215	491	250	193	443	234	182	416	21	90	12	52	22	94	10	490	3540
High St.	High, bet. Chestnut and Everett Sts.	67	53	120	49	35	84	71	61	132	51	42	93	48	36	84	53	1	12	26	21	90	3	126	1065
Oaklands	Sycamore St., near Wentworth Ave.	35	37	72	33	35	68	39	40	79	31	32	63	29	28	57	71	1	7	18	9	91	2	102	706
Pond St.	Cor. Pond and High Sts.	65	61	126	55	58	91	67	66	133	56	52	108	51	47	98	35	15	7	32	5	90	3	151	1065
Totals for Primaries		167	151	318	137	106	243	177	167	344	138	126	264	128	111	239	159	17	26	76	35	90	8	379	2836
Pawtucket (Gr.) Primary	Cor. Mammoth Rd. and Fourth Ave.	142	153	295	121	133	274	153	152	305	129	142	271	124	135	259	46	43	21	24	18	96	7	306	2471
New Moody St.	Moody St., opp. Fourth Ave.	119	137	256	111	109	220	126	146	272	106	125	231	99	115	214	96	15	14	54	10	92	6	336	2122
Riverside (Gr.) Primary	Woburn St., Wigginville	55	52	107	51	59	110	59	55	114	53	44	97	49	41	90	6	0	10	0	9	94	3	133	1061
Riverside	In Grammar School building	58	67	125	43	60	103	72	75	147	54	60	114	51	54	105	40	4	20	1	10	92	3	154	1061
Training (Gr.) Primaries	Lawrence St.	205	176	381	182	176	358	215	181	396	180	153	333	166	139	305	30	86	15	9	21	92	9	404	3168
Ames St.	Cor. Ames and Lawrence Sts.	62	51	113	50	59	109	62	62	124	51	51	102	47	47	94	53	2	11	33	13	91	3	164	1056
Central St.	Central St., opp. Hudson St.	68	80	148	67	82	149	74	87	161	63	74	137	58	66	124	35	17	13	35	19	90	1	210	1300
Training	Charles St., near Lawrence St.	112	101	213	87	92	179	127	114	241	95	87	182	85	77	162	53	9	27	40	24	89	4	204	1408
Totals for Primaries		242	232	474	204	223	427	263	263	526	209	212	421	190	190	380	141	28	51	108	56	90	11	578	3824

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS—Continued

Varnum (Gr.)	Myrtle and Beach Sts., Centralville...	291	292	583	242	298	530	323	325	658	284	273	557	268	255	523	43	125	31	45	20	93	14	776	4394
Primaries																									
West Sixth St.	W. Sixth St., bet. Coburn & Jewett	86	90	176	72	77	149	97	101	198	75	75	150	69	70	139	36	10	35	44	22	93	4	228	1412
Tenth St.	Tenth St., Cor. Varnum St.	120	107	227	85	97	182	128	120	248	98	92	190	89	82	171	64	22	26	66	11	90	5	259	1773
Billings St. ...	Billings St., near Hildreth St.	75	73	148	84	66	150	87	77	164	65	54	119	60	49	109	77	2	16	23	19	92	3	162	1039
	Totals for Primaries	281	270	551	241	240	481	312	298	610	238	221	459	218	201	419	177	34	77	133	52	91	12	649	4241
G. Washington	Cor. Avery and Lang Sts.				86	78	164																		
Mixed Schools																									
Middlesex Vil'g	Cor. Middlesex and Cornell Sts.	41	48	89	53	47	100	47	51	98	31	37	68	29	31	60	89	0	9	8	4	90	3	152	1039
Lexington Ave.	Lexington Ave., near Varnum Ave. .	18	17	35	14	16	30	18	17	35	12	11	23	11	11	22	32	0	3	4	5	96	1	56	358
	Totals for Mixed Schools	59	55	114	67	63	130	65	68	133	43	48	91	40	42	82	121	0	12	12	9	90	4	208	1117
KINDERGARTENS																									
Agawam St. ...	Agawam St. Primary School Bldg. ...	23	32	55	19	21	40	23	33	56	14	21	35	13	17	30	55	0	1	21	0	87	1	40	178
Varnum	Varnum School, Centralville	30	32	62	19	21	40	30	32	62	21	21	42	18	18	36	62	0	0	25	0	87	2	65	354
Chapel St.	Cor. Chapel and Keene Sts.	31	32	63	24	28	42	33	32	65	15	19	34	13	17	30	60	0	5	11	5	88	1	40	176
Dover St.	Dover St., bet. Branch and Grove	29	21	50	14	20	34	29	23	52	30	16	36	16	13	26	50	0	2	26	2	81	1	40	176
Bartlett	Cross St., Primary School Bldg.	25	28	53	15	14	29	25	28	53	13	18	31	11	15	26	53	0	0	14	1	85	1	45	176
Franklin	Franklin School Bldg. Branch St.	39	38	77	20	23	43	41	38	82	23	17	40	15	15	25	80	0	2	7	3	62	1	40	177
A. Lincoln	Lincoln School Bldg., Chestnut St.	47	46	93	17	18	35	47	46	93	24	11	22	9	7	16	39	0	1	12	0	73	1	31	178
Moody	Moody School Bldg., Rogers St.	19	20	39	16	12	28	33	33	70	23	21	44	19	16	35	71	0	1	21	0	80	1	50	177
Pawtucket	Mammoth Road, Pawtucketville	33	38	71	16	24	40	37	33	70	20	16	36	15	11	26	31	0	0	2	2	72	1	40	176
Charles St.	Charles St., cor. Chapel St.	37	33	70	21	13	34	37	33	70	20	16	36	15	11	26	31	0	0	1	17	0	31	178	
Pine St.	Pine and Gibson Sts.	14	17	31	16	19	35	15	17	32	10	13	23	8	11	19	31	0	0	4	0	82	1	40	178
Laura Lee	Cor. Plain and Powell Sts.	26	27	53	16	17	33	26	27	53	18	20	38	15	16	31	53	0	0	4	0	81	1	40	178
	Totals for Kindergartens	353	364	717	213	220	433	361	369	730	216	219	435	177	168	345	716	0	15	173	17	80	13	530	2392
Summary—High School		563	651	1214	533	623	1156	563	651	1214	522	619	1141	501	588	1089	101	336	0	0	0	95	34	1185	12580
Grammar Schools		2950	2901	5841	2541	2925	5166	3080	2973	6053	2645	2600	5245	2450	2419	4869	578	1091	250	409	225	93	129	6379	45038
Primary Schools		2825	2713	5538	2342	2182	4524	3122	2854	5976	2388	2176	4564	2184	1970	4154	2023	290	556	1120	532	91	124	6453	43245
Mixed Schools		59	55	114	67	63	130	65	68	133	43	48	91	40	42	82	121	0	12	12	9	90	4	208	1117
Totals, not including Kindergartens		6397	6310	12907	5183	5493	10955	6320	6546	13876	5598	5443	10941	5175	5019	10134	7823	1687	818	1541	766	93	291	14226	102330
Totals, including Kindergartens		6750	6774	13424	5686	5713	11499	7191	6915	14906	5814	5662	11476	5352	5187	10339	8539	1687	833	1711	783	93	301	14753	104682

CITY OF LOWELL

MASSACHUSETTS

The Auditor's Seventy-fourth Annual Report

OF THE

General Treasury Fund Receipts and Payments

For the financial year beginning January 1st, 1909 and
ending December 31st, 1909



INCLUDED IN THE BOOK ARE

Report of the City Treasurer Report of the Accountant
Report of the Sinking Fund Commissioners
Report of the Trust Funds Schedules of General Information

1910
BUTTERFIELD PRINTING CO.,
LOWELL, MASS.

City Council, 1909

Mayor

George H. Brown

Aldermen

SMITH J. ADAMS	ROYAL K. DEXTER
WILLIAM E. BADGER	ARTHUR L. GRAY
FRANK W. CHENEY	TYLER A. STEVENS
JEREMIAH F. CONNORS	JOHN D. TURNER
JOHN W. WAINWRIGHT	

Common Councilmen

WARD ONE

OTIS W. BUTLER	JOHN A. MCKENZIE
STANLEY E. QUAA	

4

WARD TWO

JOHN J. BRADY	JOHN F. GOOKIN
JOHN E. KEARNS	

WARD THREE

VICTOR F. JEWETT	EDWIN W. KILLPARTRICK
GEORGE R. MYERS	

WARD FOUR

CHARLES F. DONAHUE	JOHN P. MAHONEY
EDWARD J. TARRANT	

WARD FIVE

JAMES J. FLANAGAN	BERNARD J. TRACEY
FREDERICK J. WELCH	

WARD SIX

HENRY ACHIN, JR.	JOSEPH H. JODOIN, JR.
FELIX H. VIGEANT	

WARD SEVEN

JOHN B. BOUDREAU	ARTHUR GENEST
ALFRED T. HOWE	

WARD EIGHT

GEORGE L. DOW	ORRIN B. RANDLETT, 2d
CHARLES A. SPENCER	

WARD NINE

JOHN P. DAVIS	HARRY H. WHITTET
THOMAS E. WILDE	

REPORT OF THE CITY AUDITOR

To the Honorable, the City Council,

GENTLEMEN :—

In accordance with the charter and ordinances of the City of Lowell, I have the honor to transmit, herewith, the annual report, showing the financial transactions of the city for the year ending December 31, 1909.

The report is arranged by schedules presenting the General Treasury Fund balances, receipts, appropriations, transfers, payments and much important information.

During the past year the new ordinance became effective making the Treasurer's office the receiving and disbursing office, and the Auditor's office the accounting office, thereby eliminating all duplications in accounts; a new uniform check system for the payment of bills has proved very beneficial to the general public, as has also the uniform payrolls for the city employees.

The reports of the Treasurer, Accountant, Sinking Fund Commissioners, and the audit of trust funds are included in the book.

Respectfully submitted,

CHAS. D. PAIGE

Auditor of Accounts.

Lowell, Mass., April 1, 1910

A FEW SUGGESTIONS

All accounts against the city should be presented not later than the first day of each month, if presented later they are very liable to go over until the following month, before approval.

All accounts rendered should specify what the material and supplies were for, and for which department, and if for labor, where performed and the date.

All accounts should be carefully itemized to avoid delay in payment.

Persons whose accounts against the city have been approved, should call promptly for their money, for if not called for within thirty days it is returned to the city treasury, as unclaimed.

The twelfth day of each month is the day for paying all bills approved for the preceding month.

Schedule A

BALANCE SHEET OF ASSETS AND LIABILITIES OF THE CITY
OF LOWELL, DECEMBER 31, 1909.

ASSETS	
Ordinary City Debt Sinking Fund	\$375,358.10
Water Debt Sinking Fund	584,580.62
Outstanding Assessments:	
Taxes	652,735.30
Sidewalk	1,970.19
Sewers	15,174.33
Street Watering	7,934.16
Moth	1,895.14
Department Bills	8,496.67
Cash Balance December 31	198,103.83
Total Available Assets	1,846,248.34
Valuation of Water Works, both Real Estate and Personal Property	4,375,888.00
Valuation of City Buildings, Land	4,015,032.00
Valuation of Personal Property	501,990.00
Total Unavailable Assets	8,892,910.00
Total Available Assets	1,846,248.34
Total Unavailable Assets	8,892,910.00
Grand Total	10,739,158.34
LIABILITIES	
Ordinary City Debt	\$2,364,204.20
Water Works, Debt	1,106,400.00
Total Gross City Debt	3,470,604.20
Temporary Loan	700,000.00
Balance Unexpended	169,893.30
Total Liabilities	4,340,497.50
Surplus of Assets	6,398,660.84
Grand Total	\$10,739,158.34

CITY AUDITOR'S REPORT

FOR THE YEAR ENDING DECEMBER 31, 1909

Schedule B

RECEIPTS AND PAYMENTS FOR THE YEAR CONSOLIDATED

Cash Balance January 1, 1909.....		\$248,690.70
Receipts to Gen. Treasury Fund.....	\$3,741,021.08	
Temporary Accounts.....	1,255,641.47	
Cash Receipts omitting duplica- tions	\$2,485,379.61	
Payments from Gen. Treasury Fund..	3,791,607.95	
Temporary Accounts	1,255,641.47	
Cash payments omitting duplica- tions	2,535,966.48	
		50,586.87
Cash Balance December 31, 1909.....		198,103.83

Schedule C
TEMPORARY ACCOUNTS

	Receipts	Payments
Temporary Tax Loans	\$1,200,000.00	\$1,200,000.00
General Treasury Fund Transfers	55,228.87	55,228.87
Rebates and Refunds	412.60	412.60
	\$1,255,641.47	\$1,255,641.47

Schedule D
TRUST FUNDS

	Receipts	Payments
Cemetery	\$2,422.09	\$1,000.00

Schedule E
RECEIPTS AND PAYMENTS OF THE FINANCIAL YEAR
CLASSIFIED UNDER THE FOLLOWING HEADINGS

	Receipts	Payments
* Operation and Maintenance	\$2,294,857.52	\$1,906,536.78
† New Construction	188,100.00	628,429.70
Total cash proceedings for the year	\$2,482,957.52	\$2,534,966.48
‡ Trust Funds	2,422.09	1,000.00
§ Temporary Accounts	1,255,641.47	1,255,641.47
Total proceedings for the year	\$3,741,021.08	\$3,791,607.95

* **Operation and Maintenance** relate only to the General Treasury Fund Revenue and Payments, and do not include receipts and payments on account of loans or permanent construction.

† **Construction** relates only to General Treasury Fund Loans receipts and payments, and for permanent construction.

‡ **Trust Funds** include receipts and payments for specified purposes in which the City only acts as trustee.

§ **Temporary Accounts** are simply Journal items (duplications), receipts and payments which are temporarily held and paid out again, and show the same amounts in both receipts and payments.

Schedule F

RECEIPTS AND PAYMENTS FOR THE CURRENT YEAR

Revenue Receipts and Payments—Capital Receipts and Payments
Grouped According to Functions

Revenue Receipts and Payments

Functions	Receipts	Payments
1—Taxes	\$1,780,100.72	\$193,468.08
2—Licenses and Permits	183,214.27	
3—Special Assessments	36,994.02	4.00
4—Refunds		166.96
5—General Government	8,423.97	118,968.45
6—Protection of Life and Property	13,686.01	313,544.45
7—Health and Sanitation	19,248.11	141,584.78
8—Highways and Bridges	17,192.67	290,569.44
9—Charities	5,176.02	76,404.95
10—Education	8,616.15	410,214.53
11—Libraries and Reading Rooms		14,000.00
12—Recreation	1,120.62	17,241.71
13—Soldiers Benefits	19,395.00	38,452.73
14—Unclassified		2,833.03
15—Interest	28,359.89	141,657.04
16—Cemeteries	11,037.99	7,522.89
17—Municipal Industries	212,718.15	180,560.53
18—Municipal Indebtedness		
19—Sinking Funds		30,500.00
	\$2,345,283.59	\$1,977,693.57

Loans and Capital Receipts—Payments from Loans
and Capital Receipts

1—Taxes		
2—Licenses and Permits		
3—Special Assessments		
4—Refunds		
5—General Government		
6—Protection of Life and Property		\$25,302.32
7—Health and Sanitation		57,669.62
8—Highways and Bridges		68,797.81
9—Charities		
10—Education		41,073.70
11—Libraries and Reading Rooms		
12—Recreation		5,501.07
13—Soldiers Benefits		
14—Unclassified		
15—Interest		
16—Cemeteries		
17—Municipal Industries		31,150.98
18—Municipal Indebtedness	1,388,100.00	1,598,934.20
19—Sinking Funds		
	\$1,388,100.00	\$1,828,429.70

Schedule G

Receipts and Payments divided as follows:

Receipts and Payments of Revenue

Receipts and Payments including those of Loans and Bonds
grouped according to functions as in
Schedule F

1. TAXES

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. City:—				
Real, Personal, Poll				
Current Year	\$1,245,287.32			
Real, Personal, Poll				
Previous Years	405,181.02			
2. St. Railway Taxes:—				
State	10,824.41			
City	9,112.99			
3. Other Taxes:—				
Corporation	105,950.64		138.51	
National Bank	3,744.34		10,091.41	
State			98,685.00	
County			84,553.16	
	\$1,780,100.72		\$193,468.08	

Schedule G—Continued

2. LICENSES AND PERMITS

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Licenses :—				
Liquor	\$172,500.00		\$43,138.00	
Druggists	54.00			
Fish	35.00			
Auctioneers	62.00			
Dog	3,306.80			
Business	2,872.92			
Junk	291.50			
Other	1,494.05			
2. Permits :—				
Amusement	933.00			
Marriage	1,146.00			
Pool and Bowling	519.00			
	\$183,214.27		\$43,138.00	

3. SPECIAL ASSESSMENTS

1. For Expenses :—				
Street Sprinkling	\$18,846.26		\$4.00	
Moth	3,464.14			
Sewers	11,232.22			
Sidewalks	3,451.40			
	\$36,994.02		\$4.00	

4. REFUNDS

1. Taxes Abated			\$166.96	
			\$166.96	

Schedule G—Continued

5. GENERAL GOVERNMENT

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Legislative:—				
City Council	\$30.50		\$3,418.39	
2. Executive:—				
Mayor	14.15		4,359.35	
3. Financial:—				
Auditor	115.60		5,616.89	
Treasurer	991.18		11,326.30	
Assessors			14,525.40	
4. Other Gen. Depts:—				
Clerk of Committees			1,549.90	
Clerk of Council			300.00	
City Clerk	167.88		5,916.56	
Solicitor			6,134.61	
Messenger			17,923.21	
Elections	10.00		9,102.62	
Registration	1.00		4,725.09	
Supply .....	.11		6,631.54	
Insurance	44.34		2,924.11	
State Supervisors			110.00	
License Commissioners			4,447.82	
Engineering	7,049.21		13,701.66	
Supt. Buildings			4,163.50	
Public Building Janitors			2,091.50	
	\$8,423.97		\$118,968.45	

Schedule G—Continued

6. PROTECTION OF LIFE AND PROPERTY

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Police Department:—				
Salaries and Wages			\$133,124.03	
Horses and Care			177.35	
Fuel and Light			682.12	
Equipment and Repair ..			706.78	
Pensions			3,660.96	
Police Court Fines	\$7,060.38			
Sale of Material	358.10			
Rent of Court Room....	2,400.00			
Miscellaneous	2,330.25		3,410.85	
2. Fire Department:—				
Salaries and Wages			121,430.61	
Horses and Care			4,803.19	
Fuel and Light			5,253.02	
Hydrant Service			408.09	
Equipment and Repair ..			4,355.50	\$4,730.59
New Buildings				7,764.11
Pensions			3,718.56	
Other Expenses			9,945.46	
Sale of Material and				
Miscellaneous	838.88			
3. Pound Keeper			5.00	
4. Fish Warden			40.00	
5. Rifle Range			798.56	
6. Building Dept. Wages				
and Expenses			15,496.17	
7. Inspection Wires			2,523.60	
8. Weigher			806.68	
9. Sealer			2,197.92	
10. Public Building Repairs				12,807.62
	\$13,686.01		\$313,544.45	\$25,302.32

Schedule G—Continued

7. HEALTH AND SANITATION

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Health:—				
General Administration			\$9,023.75	
Other Expenses			3,820.17	
Contageous Diseases	\$406.29			
2. Inspection:—				
Animals			510.00	
Meat and Provisions			936.00	
Milk and Vinegar	107.00		2,437.01	
School Children.....			1,680.00	
3. Sanitation:—				
Sewer Maintenance			22,941.82	
Sewer Construction	59.87			\$57,669.62
Refuse and Garbage	6,046.87		42,566.41	
Sale and use of Material	11,683.89			
Miscellaneous	856.26			
Reimbursements	87.93			
	\$19,248.11		\$141,584.78	\$57,669.62

Schedule G—Continued

8. HIGHWAYS AND BRIDGES

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Gen. Administration:—			\$ 4,000.18	
Street Repairs			18,542.00	
Street Construction	\$ 24.32		12,809.62	\$10,891.99
Paving Repairs			6,826.15	
New Paving			6,866.05	55,374.69
New Macadam			7,884.76	
Street Cleaning			45,581.59	
Street Lighting	5.60		97,642.75	
Street Sprinkling .....	.40		17,408.67	
Sidewalks and Curbing			5,770.81	
Snow Removal			11,992.94	
Bridge Repairs	4.50		2,561.93	2,531.13
Sale and use of material	15,118.12			
Miscellaneous	1,890.34			
Other Expenses			44,983.77	
2. State Highway Repairs			132.65	
3. Grade Crossings			372.60	
4. Care of Trees			954.00	
5. Moths	149.39		6,228.97	
	\$17,192.67		\$290,569.44	\$68,797.81

Schedule G—Continued

9. CHARITIES

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. General Expenses:—				
Salaries and Wages			\$10,716.13	
Ambulance			2,864.18	
Outside Relief by Cities			23,427.69	
Other institutions and				
Hospitals			4,399.09	
Relief by other Cities				
and Towns			3,346.00	
Hospital Maintenance ..			31,651.86	
2. Re-imbursements:—				
Almshouse	\$1,100.17			
Cities and Towns	1,802.48			
From State	1,735.09			
Miscellaneous	538.28			
	\$5,176.02		\$76,404.95	

Schedule G—Continued

10. EDUCATION

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Administration:—				
Superintendent's Salary			\$3,000.00	
Other General Salaries			9,266.57	
Other Gen. Expenses			11,443.10	
2. Teachers' Salaries:—				
Day School	\$7,228.00		226,752.20	
Evening School			17,933.25	
Kindergartens			12,412.76	
Manual Training			11,668.98	
3. General Expenses:—				
Text Books and Supplies			11,804.02	
Janitor Service			46,914.86	
Fuel and Light			21,377.56	
Board of Truants			3,234.95	
Furniture and Furnishings	639.23		1,291.26	
Repairs and Improvements			3,581.34	
New Buildings and additions			21,533.68	\$41,073.70
Labor Reimbursements	748.92			
4. Textile School			8,000.00	
	\$8,616.15		\$410,214.53	\$41,073.70

Schedule G—Continued

11. LIBRARIES AND READING ROOMS

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Supervision:—				
Salaries and Wages			\$9,308.44	
2. General Expenses:—				
Books and Periodicals..			1,387.66	
Fuel and Light			930.57	
Binding			702.76	
Miscellaneous			1,670.57	
			\$14,000.00	

12. RECREATION

1. Parks and Gardens:—				
Supervision			\$1,200.00	
Wages	\$ 2.77		8,802.72	
Other Expenses			2,970.64	
Improvements	33.85		2,075.14	\$3,001.07
Rentals	1,084.00			
2. Playgrounds:—				
Wages and other Expenses				2,500.00
3. Celebrations and Entertainments:—				
Band Concerts			894.26	
Memorial Day			1,298.95	
	1,120.62		17,241.71	5,501.07

13. SOLDIERS' BENEFITS

1. General Administration			1,870.93	
2. State Aid	17,288.00		18,050.50	
3. Military Aid	1,679.00		3,052.00	
4. Soldiers' Burials			980.00	
Soldiers' Relief	428.00		14,499.30	
	19,395.00		38,452.73	

Schedule G—Continued

14. UNCLASSIFIED

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
1. Damages to Persons and Property			2,276.37	
2. Cowley Investigation			481.66	
3. Taylor Tablet			75.00	
			2,833.03	

15. INTEREST

1. On Temporary Tax Loans			23,463.01	
2. On Loans Gen. Purposes			115,034.03	
3. On Trust Funds			2,160.00	
4. On Perpetual Care			1,000.00	
5. On Deposits	5,180.18			
6. On Taxes	23,179.19			
	28,359.89		141,657.04	

16. CEMETERIES

1. General Expenses:—				
Supervision			1,200.00	
Wages			5,222.89	
Other Expenses			1,100.00	
2. Revenue:—				
Sale of Lots	2,711.00			
Care of Lots	3,465.40			
Interments and Foundations	2,439.50			
Income Perpetual Care	2,422.09			
	11,037.99		7,522.89	

Schedule G—Continued

17. MUNICIPAL INDUSTRIES

	Receipts		Payments	
	Revenue for Expenses	Offsets to Outlays	Expenses	Outlays
I. Water Department:—				
Maintenance and Operation			118,333.70	
New Construction				15,950.98
Bonds and Notes paid from earnings				15,200.00
Interest on Loans			44,571.00	
Other Expenses			17,655.83	
Income Sale of Water	192,552.84			
Miscellaneous	20,165.31			
	\$212,718.15		\$180,560.53	\$31,150.98

18. MUNICIPAL INDEBTEDNESS

1. Temporary Tax Loans	\$1,200,000.00	\$1,300,000.00
2. Highways	73,400.00	63,813.00
3. Schools	12,500.00	67,963.00
4. Sewers	56,000.00	74,490.00
5. Water	15,200.00	15,200.00
6. Buildings	12,000.00	
7. Miscellaneous	19,000.00	77,468.20
	\$1,388,100.00	\$1,598,934.20

19. SINKING FUNDS

1. Sinking Fund from Taxation		\$14,500.00
2. Water Works from Tax Levy		16,000.00
		\$30,500.00

SCHEDULE H

ACCOUNTANT'S REPORT CITY TREASURER'S REPORT CEMETERY TRUST FUND REPORT SINKING FUND COMMISSIONERS' REPORT

EDWIN S. MORSE & COMPANY
AUDITORS - EXAMINERS - ACCOUNTANTS
BOSTON, MASS.

UNIFORM MUNICIPAL ACCOUNTING
A SPECIALTY

APRIL 15, 1910

HON. JOHN F. MEEHAN, Mayor,
City of Lowell, Massachusetts.

DEAR SIR:

In accordance with the request made of us we have audited the books and accounts of your City Treasurer and report thereon as follows:

We balanced the cash as found on March 2, 1910, and having obtained from the banks certificates of balances and the checks which had come in to that time reconciled the bank accounts with the cash book of the City Treasurer. We found the cash on hand and the balances in the banks to be as shown on the books and having verified all the footings for the past year, since our previous audit, we certify to the correctness of the cash account; we also certify that there were adequate vouchers for all payments for the year as shown to have been made since our last report.

We also verified the receipts and payments for the year with the reports of the same to the City Auditor and found that they had all been correctly reported to and entered by the City Auditor upon his books. As his annual report will give all the figures we do not deem it necessary to deal with them in this report.

We examined the receipts for taxes for the years 1901-1909, inclusive, as shown on the books of the City Treasurer and Collector and the reports of the same to the City Auditor, and from that examination would report that all collections as shown to have been made were correctly reported to the City Auditor and accurately entered upon his books.

Our examination of the collections of the Sidewalk and Sewer assessments assured us that they were correctly reported as made and that the books of the City Treasurer and City Auditor agree as to payments made and balances due on those assessments.

We also carefully verified the securities and cash balances as shown in the several trust and special funds which are in the custody of the City Treasurer and in each instance we found the securities and cash to be correct as shown by the statements which were submitted by the Treasurer and the Sinking Fund Commissioners.

Last year we called attention to the matter of uncollected taxes for the years 1901-1905, inclusive, amounting to about \$70,000. and would now state that the same condition now obtains as to the taxes of 1906 and 1907, and that the uncollected taxes for the seven years above named amount to about \$105,000. We believe that substantially all of those taxes are uncollectable and we repeat the statement made last year that they are artificial assets and should be disposed of; we would again suggest that the exact amount for each year be recommended by the City Treasurer and Assessors to the City Council for abatement and in our opinion this matter is of so great importance that it should not be longer overlooked as each year the condition becomes worse.

We again venture to call attention to a matter upon which we touched last year by quoting in full one paragraph from that report:

"We would also recommend that in the future no tax bills be sent out by the Treasurer, but that they all be made out by the Assessors and notices of the same be sent by the Treasurer as Collector, and the original bills be kept by him until paid."

This plan is in accord with advanced methods in the manner of collecting taxes and if it is properly installed will assist very materially in making at any time a speedy and accurate audit of the accounts of the Collector.

In closing this report we are pleased to be able to state our belief that the system of accounting which we assisted in installing more than a year ago is working well and is very satisfactory in all of the departments in which it has been put in operation.

Respectfully submitted,

EDWIN S. MORSE & Co.,

Accountants

ACCOUNT OF THE CITY TREASURER AND COLLECTOR OF TAXES FOR THE YEAR 1909

LOWELL, MASS., January 1, 1910

To the Honorable the City Council.

GENTLEMEN:

I have the honor to submit the following Report of the Receipts and Expenditures of the City of Lowell for the financial year 1909.

Monthly receipts as follows:

January	\$86,567.61	
February	60,798.24	
March	93,449.16	
April	479,120.39	
May	74,283.15	
June	182,848.99	
July	998,983.84	
August	13,439.72	
September	158,623.30	
October	1,240,602.09	
November	231,523.65	
December	57,914.58	\$3,678,154.72
		<hr/>
Cash bal. Jan. 1, 1909		248,690.70
		<hr/>
		3,926,845.42
		<hr/>

Monthly payments as follows:

January	\$ 59,235.53	
February	138,283.71	
March	147,934.68	
April	165,229.78	
May	226,553.97	
June	217,315.84	
July	978,014.50	
August	192,885.33	
September	155,259.51	
October	273,595.83	
November	854,689.89	
December	319,743.02	\$3,728,741.59
		<hr/>
Cash balance, December 31, 1909		198,103.83
		<hr/>
		3,926,845.42
		<hr/>

Respectfully submitted,

ANDREW G. STILES,

City Treasurer and Collector of Taxes

STATEMENT OF CITY TREASURER RELATING TO SPECIAL FUNDS FOR CARE OF PUBLIC BURIAL GROUNDS

LOWELL, MASS., January 1, 1910.

To the Honorable the City Council of Lowell:

GENTLEMEN :

I have the honor to submit the following statement of special funds in my hands, deposited for perpetual care of lots in the public burial grounds of the City of Lowell:

On hand January 1, 1909.....	\$ 56,575.00
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Received during the year from

William E. Cushman	\$100.00
Josephine Baker	100.00
William H. Brown, Adm.	100.00
Rubie E. Foster, Admx.	100.00
Mrs. Ezra Clark	100.00
Daniel Marshall, Exr.	100.00
Phoebe L. Coburn	150.00
L. F. Warren	100.00
Grace Thompson	100.00
Emma Evison	100.00
Lizzie F. Hutchins	100.00
Lyman M. Langley	100.00
Simeon Naylor	100.00
Bessie M. Bascom	100.00
Etta M. Rutherford	100.00
Mary T. Wilder	100.00
Benjamin Culley	100.00
Annie M. Craven	100.00
Orville W. Brunnell	100.00
Robert W. McAllister	100.00
John L. Hill	100.00
Mrs. George E. Evans	200.00
Mrs. W. J. Scott	100.00
Louis H. Kileski, Ex.	100.00
Elizabeth C. Buchanan	100.00
George F. Tilton	100.00
Amos B. French	100.00
Arthur D. Colby	200.00
Sidney Blowen	100.00
Mary M. Chase	100.00
Mrs. James R. Crawford	100.00

George E. King, Adm.	100.00	
Albert A. Melvin	200.00	
Nellie A. Ferrin	125.00	
Hannah E. Whitten	100.00	
Thomas G. Lyons	100.00	3,975.00
		<hr/>
		60,550.00
		<hr/>

The following amounts are invested as follows:

City Institution for Savings	7,200.00	
Washington Savings Institution	7,850.00	
Savings Dept. Traders Nat. Bank	6,500.00	
Merrimack River Savings Bank	7,500.00	
Mechanics Savings Bank	6,900.00	
Lowell Institution for Savings	8,375.00	
Central Savings Bank	8,900.00	
Lowell Five Cent Savings Bank	7,325.00	60,550.00
	<hr/>	<hr/>

Respectfully submitted,

ANDREW G. STILES,
City Treasurer

REPORT OF THE COMMISSIONERS OF THE SINKING FUNDS FOR THE YEAR 1909

LOWELL, MASS., January 1, 1910.

To the Honorable the City Council of Lowell:

GENTLEMEN :

The Commissioners of Sinking Funds of the City of Lowell have the honor to submit the following report of the several Sinking Funds of said City and of the Hapgood Wright Centennial Trust Fund for the year 1909.

Full value of all Sinking Funds, Jan. 1, 1910	\$959,938.72	
Full value of all Sinking Funds, Jan. 1, 1909	895,529.00	
		<hr/>
Increase during the year 1909		64,409.72
Value of the Water Loan Sinking Funds, Jan. 1, '10	584,580.62	
Value of the Water Loan Sinking Funds, Jan. 1, '09	550,232.86	
		<hr/>
Increase during the year 1909		34,347.76
Value of all other Sinking Funds, Jan. 1, 1910	375,358.10	
Value of all other Sinking Funds, Jan. 1, 1909	345,296.14	
		<hr/>
Increase during the year 1909		30,061.96
		<hr/>
		64,409.72
Value of the Hapgood Wright Centennial Trust Fund, January 1, 1910	\$3,966.77	
Value of the Hapgood Wright Centennial Trust Fund, January 1, 1909	3,813.94	
		<hr/>
Increase during the year 1909		\$152.83
		<hr/>

A statement of the receipts, payments and present value of the several Sinking Funds and a list of the securities in each fund follows:

WATER LOAN SINKING FUND

	Securities	Cash	Total
On hand January 1, 1909	\$470,713.00	\$2,088.19	\$472,801.19
Received during 1909:			
Cash-Annual Appropriation		16,000.00	
Income on Investments		20,068.52	
Income on Bank Deposits		297.20	
Securities matured		1,171.30	
Securities bought in 1909			34,000.00
		39,625.21	
Paid for securities in 1909		39,484.65	
On hand January 1, 1910	503,541.70	140.56	503,682.26
Increase during 1909			30,881.07

Securities belonging to this Fund:

4 City of Lewiston coupon bonds, 5 per cent	\$4,000.00
7 Town of Sharon coupon bonds, 4 per cent	7,000.00
12 Town of Athol coupon bonds, 4 per cent	12,000.00
15 City of Portsmouth coupon bonds, 4 per cent	15,000.00
14 City of Waterville coupon bonds, 4 per cent	14,000.00
1 City of Boston registered bond, 4 per cent	61,000.00
5 City of Saginaw coupon bonds, 4 per cent	5,000.00
15 Fitchburg R. R. coupon bonds, 4 per cent	15,000.00
8 C. B. & Q. R. R. coupon bonds, 4 per cent	8,000.00
4 Illinois Central R. R. coupon bonds, 4 per cent	4,000.00
1 Boston & Maine R. R. reg. bond, 4 1-2 per cent	10,000.00
30 No. West. Union R. R. coupon bonds, 7 per cent	15,000.00
9 N. Y., Lack. & West. R. R. coupon bonds, 6 p. ct.	9,000.00
48 Town of Northfield coupon bonds, 3 1-2 per ct.	24,000.00
3 Boston & Maine R. R. coupon bonds, 4 per ct.	3,000.00
50 Lowell & Suburban St. R. R. coupon bds, 5 p. ct.	50,000.00
2 St. Johnsbury & Lake Champlain R. R. coupon bonds, 5 per cent	2,000.00
15 Lynn & Boston St. R. R. coupon bonds, 5 p. ct.	15,000.00
20 Illinois Central R. R. coupon bonds, 3 1-2 p. ct.	20,000.00
44 N. Y. N. H. & H. R. R. coupon bonds, 4 per ct.	44,000.00
25 Boston Elevated coupon bonds, 4 per cent	25,000.00
8 C. B. & Q. R. R. coupon bonds, 4 per cent	8,000.00
15 Boston & Maine R. R. coupon bonds, 4 per cent	15,000.00
1 Town of Melrose coupon bonds, 4 per cent	1,000.00

	Cash	Total
1 City of New Bedford Reg. bond, 5 per cent.....	28,000.00	
2 City of Lowell coupon bonds, 4 per cent.....	2,000.00	
6 City of Dover coupon bonds, 4 per cent	6,000.00	
3 City of Boston reg. bonds, 3 1-2 per cent.....	15,000.00	
15 Delaware & Hudson R. R. coupon bonds, 4 p. ct.	15,000.00	
6 Milwaukee & Lake Shore coupon bonds, 6 per ct.	6,000.00	
10 Am. Tel. & Tel. Co. coupon bonds, 4 per cent....	10,000.00	
1 City of Lowell Serial Note, 4 per cent.....	1,541.70	
1 Chicago & No. Western Reg. bond, 4 per cent.....	5,000.00	
1 Town of Lexington Reg. bond, 4 per cent.....	4,000.00	
25 Delaware & Hudson Reg. bonds, 7 per cent.....*	25,000.00	\$503,541.70

Cash on deposit in Appleton Nat. Bank

140.56

503,682.26

HIGH SERVICE WATER LOAN SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1909	\$76,000.00	\$1,431.67	\$77,431.67
Received during 1909			
Income on Investments		3,180.00	
Income on bank deposits		62.69	
Securities bought in 1909	4,000.00		
		<u>4,674.36</u>	
Paid for Securities in 1909		3,776.00	
On hand Jan. 1, 1910	80,000.00	898.36	80,898.36
Increase during the year 1909			3,466.69

Securities belonging to this Fund:

2 City of Beverly coupon bonds, 4 per cent	\$2,000.00
1 City of Portsmouth coupon bond, 4 per cent.....	1,000.00
4 C. B. & Q. R. R. coupon bonds, 4 per cent.....	4,000.00
7 Winona & St. Peter R. R. coupon bonds, 7 p. ct.	7,000.00
2 N. Y. & Lack. R. R. coupon bonds, 6 per cent....	2,000.00
1 Boston & Maine R. R. coupon bonds, 4 per cent..	1,000.00
2 Lowell & Suburban St. Ry. coupon bonds, 5 p. ct.	2,000.00
21 N. Y. N. H. & H. R. R. coupon bonds, 4 per cent	21,000.00
6 C. B. & Q. R. R. coupon bonds, 4 per cent.....	6,000.00
7 N. Y. N. H. & H. R. R. coupon notes, 5 per ct...	7,000.00
5 Town of Melrose coupon bonds, 4 per cent.....	5,000.00

	Cash	Total
6 Worcester, Nashua & Rochester coupon bonds, 4 per cent	6,000.00	
2 Boston & Lowell R. R. coupon bonds, 4 per cent	2,000.00	
10 Boston Elevated coupon bonds, 4 per cent.....	10,000.00	
4 Am. Tel. & Tel. Co. coupon bonds, 4 per cent....	4,000.00	\$80,000.00
Cash on deposit in Appleton Nat. Bank		898.36
		<u>80,898.36</u>

CITY HALL AND MEMORIAL BUILDING SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1909	\$215,500.00	\$2,525.94	\$218,025.94
Received during 1909			
Cash-Annual Appropriation		7,500.00	
Income on Investments		9,262.50	
Income on Bank Deposits		147.95	
Securities matured during 1909		500.00	
Securities bought in 1909	20,000.00		
	<u>235,000.00</u>	<u>19,936.39</u>	
Paid for Securities in 1909		19,583.11	
On hand Jan. 1, 1910	<u>235,000.00</u>	<u>353.28</u>	<u>235,353.28</u>
Increase during 1909			<u>17,327.34</u>

Securities belonging to this Fund:

5 City of Brockton coupon bonds, 4 per cent.....	\$5,000.00
1 Town of Reading coupon bond, 4 per cent.....	1,000.00
4 Town of Wrentham coupon bonds, 4 per cent....	4,000.00
9 Town of Arlington coupon bonds, 4 per cent.....	9,000.00
8 Town of Stoughton coupon bonds, 4 per cent.....	8,000.00
3 City of Saginaw coupon bonds, 4 per cent.....	3,000.00
6 Fitchburg R. R. coupon bonds, 4 per cent.....	6,000.00
1 City of Boston reg. bond, 4 per cent.....	21,000.00
1 City of Brockton reg. bond, 4 per cent.....	1,000.00
10 C. B. & Q. R. R. coupon bonds, 4 per cent.....	10,000.00
19 Illinois Central R. R. coupon bonds, 4 per cent....	19,000.00
7 N. Y., Lack. & West. R. R. coupon bonds, 6 p. ct.	7,000.00
7 City of Indianapolis coupon bonds, 4 per cent.....	7,000.00
1 Brockton reg. bond, 4 per cent.....	1,000.00

	Cash	Total
4 Town of Northfield coupon bonds, 3 1-2 per ct.	2,000.00	
11 Winona & St. Peter R. R. coupon bond, 7 per ct.	11,000.00	
6 City of Malden coupon bonds, 4 per cent.....	6,000.00	
10 Lynn & Boston St. R. R. coupon bonds, 5 per ct.	10,000.00	
8 N. Y. N. H. & H. R. R. coupon bonds, 4 per ct...	8,000.00	
5 Illinois Central R. R. coupon bonds, 3 1-2 per ct.	5,000.00	
7 City of Portsmouth coupon bonds, 4 per cent.....	7,000.00	
10 City of Augusta coupon bonds, 4 per cent.....	10,000.00	
1 City of Lowell coupon bonds, 4 per cent.....	1,000.00	
2 C. B. & Q. R. R. coupon bonds, 4 per cent.....	2,000.00	
10 Fitchburg R. R. coupon bonds, 4 per cent.....	10,000.00	
10 Boston & Maine R. R. coupon bonds, 4 per cent	10,000.00	
4 City of Melrose coupon bonds, 4 per cent.....	4,000.00	
1 City of Providence reg. bond, 4 per cent.....	11,000.00	
1 City of Lowell coupon bond, 4 per cent.....	1,000.00	
10 Delaware & Hudson R. R. coupon bonds, 4 p. ct.	10,000.00	
1 City of Boston reg. bond, 3 1-2 per cent.....	5,000.00	
1 City of Lowell Serial Note, 4 1-4 per cent.....	2,000.00	
1 Chicago & No. West. R. R. reg. bond, 4 per cent	10,000.00	
8 Am. Tel. & Tel. Co. coupon bonds, 4 per cent...	8,000.00	\$235,000.00
Cash on deposit in Appleton Nat Bank		353.28
		<u>235,353.28</u>

LOWELL HIGH SCHOOL SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1909	\$69,500.00	\$1,987.77	\$71,487.77
Received during 1909			
Cash-Annual Appropriation		3,000.00	
Income on Investments		3,092.50	
Income on Bank Deposits		75.55	
Securities bought in 1909	8,000.00		
Securities matured during 1909		500.00	
		<u>8,655.82</u>	
Paid for Securities in 1909		7,847.56	
On hand Jan. 1, 1910	<u>77,000.00</u>	<u>808.26</u>	<u>77,808.26</u>
Increase during 1909			<u>6,320.49</u>

Securities belonging to this Fund:

	Cash	Total
7 City of Portsmouth coupon bonds, 4 per cent	\$7,000.00	
5 City of Indianapolis coupon bonds, 4 per cent....	5,000.00	
4 Fitchburg R. R. coupon bonds, 4 per cent.....	4,000.00	
5 C. B. & Q. R. R. coupon bonds, 4 per cent.....	5,000.00	
7 Illinois Central R. R. coupon bonds, 4 per cent....	7,000.00	
2 City of Saginaw coupon bonds, 4 per cent.....	2,000.00	
1 Boston & Maine R. R. coupon bonds, 4 per cent..	1,000.00	
22 N. Y. N. H. & H. R. R. coupon bonds, 4 per ct...	22,000.00	
5 C. B. & Q. R. R. coupon bonds, 4 per cent.....	5,000.00	
1 N. Y. N. H. & H. R. R. coupon note, 5 per cent	1,000.00	
1 City of Lowell Serial Note, 4 1-2 per cent.....	1,200.00	
1 City of Lowell Serial Note, 4 1-2 per cent.....	2,800.00	
5 City of Milwaukee coupon bonds, 4 per cent.....	5,000.00	
1 Chicago & No. West. R. R. reg. bond, 4 per cent	5,000.00	
3 Am. Tel. & Tel. Co. coupon bonds, 4 per cent....	3,000.00	
1 N.Y. Lack. & West. R. R. coupon bond, 6 per ct.	1,000.00	\$77,000.00
Cash on deposit in Appleton Nat. Bank		808.26
		<u>77,808.26</u>

NEW SCHOOL HOUSES SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1909	\$54,000.00	\$1,782.43	\$55,782.43
Received during 1909			
Cash-Annual Appropriation		4,000.00	
Income on Investments		2,200.00	
Income on Bank deposits		61.69	
Securities bought in 1909	8,000.00		
		8,044.12	
Paid for Securities in 1909		7,847.56	
On hand Jan. 1, 1910	62,000.00	196.56	62,196.56
Increase during 1909			6,414.13

Securities belonging to this Fund:

	Cash	Total
8 City of Indianapolis coupon bonds, 4 per cent.....	\$8,000.00	
3 C. B. & Q. R. R. coupon bonds, 4 per cent.....	3,000.00	
5 Illinois Central R. R. coupon bonds, 4 per cent....	5,000.00	
2 Winona & St. Peter R. R. coupon bonds, 7 per ct.	2,000.00	
1 N. Y. Lack. & West. R. R. coupon bond, 6 per ct.	1,000.00	
4 Boston & Maine R. R. coupon bonds, 4 per cent..	4,000.00	
5 N. Y. N. H. & H. R. R. coupon bonds, 4 per cent	5,000.00	
1 City of Minneapolis reg. bond, 3 1-2 per cent.....	10,000.00	
1 City of Lowell coupon bond, 4 per cent.....	1,000.00	
4 C. B. & Q. R. R. coupon bonds, 4 per cent.....	4,000.00	
1 N. Y. N. H. & H. R. R. coupon note, 5 per cent..	1,000.00	
5 Town of Melrose coupon bonds, 4 per cent.....	5,000.00	
5 City of Milwaukee coupon bonds, 4 per cent.....	5,000.00	
1 Chicago & No. West. R. R. reg. bond, 4 per cent	5,000.00	
3 Am. Tel. & Tel. Co. coupon bonds, 4 per cent....	3,000.00	\$62,000.00
Cash on deposit in Appleton Nat. Bank		196.56
		<u>62,196.56</u>

HAPGOOD WRIGHT CENTENNIAL TRUST FUND

On hand Jan. 1, 1909	\$3,813.94	
Received during 1909		
Cash-Interest on bank deposits	152.83	3,966.77
On hand Jan. 1, 1910		3,966.77
Increase during 1909		152.83

Securities belonging to this Fund:

Cash deposited in Lowell Inst. for Savings	796.42	
Cash deposited in City Inst. for Savings	3,170.35	3,966.77

Respectfully submitted,

AUSTIN K. CHADWICK
 FRED A. BUTTRICK
 CHARLES L. KNAPP

*Commissioners of Sinking Funds for the
 City of Lowell for the year 1909*

SCHEDULE I

TRUST FUNDS

(CHAP. 322)

AN ACT TO PROVIDE FOR THE AUDITING OF CERTAIN TRUST FUNDS AND ACCOUNTS

Be it enacted, etc., as follows:

SECTION 1. It shall be the duty of city and town auditors at least once every year, and so much oftener as they may deem it necessary, to audit the accounts of the trustees of any property the principal or income of which, in whole or in part, was bequeathed or given in trust for the benefit of the city or town or any part thereof, or for the benefit of the inhabitants of the city or town or of any part thereof, and to examine and estimate the funds, securities and evidences of property held by such trustees. City and town auditors shall include in their annual reports a report of such auditing and investigation; and if they discover any fraud or irregularity they shall immediately report the same to the mayor and treasurer of the city or to the selectmen or treasurer of the town.

SECTION 2. It shall be the duty of the trustees designated in Section one hereof to give city and town auditors free access to their accounts, funds, securities and evidences of property; and any such trustee who refuses to exhibit his trust accounts, funds, securities and evidences as aforesaid shall be subject to a fine of not less than fifty nor more than two hundred dollars.

SECTION 3. This act shall be construed as applying only to property held in trust for public uses. (*Approved May 9, 1904*).

Full value of all Sinking Funds Jan. 1, 1910.....	\$959,938.72	
Full value of all Sinking Funds Jan. 1, 1909.....	895,529.00	
	\$64,409.72	

Increase During the Year 1909

Value of the Water Loan Sinking Fund Jan. 1, 1910	584,580.62	
Value of the Water Loan Sinking Fund Jan. 1, 1909	550,232.86	
	34,347.76	

TRUST FUNDS—Continued**Increase During the Year 1909**

Value of all other Sinking Funds Jan. 1, 1910.....	375,358.10	
Value of all other Sinking Funds Jan. 1, 1909.....	345,296.14	
		<u>30,061.96</u>
		<u>\$64,409.72</u>

Water Loan Sinking Fund

Value of fund Jan. 1, 1910	503,682.26	
Securities belonging to this fund		503,541.70
Cash on deposit at Appleton National Bank		140.56
		<u>503,682.26</u>

High Service Water Loan Sinking Fund

Value of fund Jan. 1, 1910	80,898.36	
Securities belonging to this fund		80,000.00
Cash on deposit at Appleton National Bank		898.36
		<u>80,898.36</u>

City Hall and Memorial Building Fund

Value of fund Jan. 1, 1910	\$235,353.28	
Securities belonging to this fund		\$235,000.00
Cash on deposit at Appleton National Bank		353.28
		<u>235,353.28</u>

High School Sinking Fund

Value of fund Jan. 1, 1910	77,808.26	
Securities belonging to this fund		77,000.00
Cash on deposit at Appleton National Bank		808.26
		<u>77,808.26</u>

TRUST FUNDS—Continued**New School Houses Sinking Fund**

Value of fund Jan. 1, 1910	62,196.56	
Securities belonging to this fund		62,000.00
Cash on deposit at Appleton National Bank		196.56
		<u>62,196.56</u>

Hapgood Wright Centennial Trust Fund

Resolution adopted by the City Council, March 14, 1876: "The sum of \$1,000.00 be accepted from Hapgood Wright, under the conditions specified by him, that the money be placed at interest for 50 years and at the end of that time the interest to be spent by the City Council (by a two third vote) for the benefit of the City or its citizens, but the original \$1,000.00 to be always kept on deposit and the interest only to be spent by the City Council at the end of each 50 years."

Value of fund Jan. 1, 1909	3,966.77	
Cash on deposit Lowell Institution for Savings		796.42
Cash on deposit City Inst. for Savings		3,170.35
		<u>3,966.77</u>
Increase during the year 1909		152.83

Public Burial Ground Fund

Value of fund Jan. 1, 1910	\$60,550.00	
Savings Bank Accounts valued at		\$60,550.00

Thomas Nesmith Fund

\$25,000.00. Annual interest, \$1,500.00

Resolution, numbered 57, passed by the City Council, November, 1870: "That the sum of \$25,000.00 be accepted by the City and that the interest, at the rate of 6 per cent, be paid to the trustees, and that they in turn pay to the Ministry-at-Large, or to like people, as they may decide. Said sum to be used for people in temporary need of charitable assistance without distinction of race, color or religion. Original trustees: George F. Richardson, John A. Buttrick, Owen Street, Samuel W. Stickney and Charles Hovey. In case of a vacancy, the remaining trustees shall report to the Justice of the Court, who shall appoint a successor to fill said vacancy."

TRUST FUNDS—Continued**Thomas Nesmith Fund**

\$1,000.00 Annual interest, \$60.00.

Resolution, numbered 54, passed by the City Council, April, 1870: "That the City of Lowell be appointed trustee of the sum of \$1,000.00, and the City Treasurer is authorized to pay to the High Street Church the interest of said sum at the rate of 6 per cent for ever. Said sum to be used by the Pastor and Deacons of said Church to sustain the Sunday School and its library for the moral and religious instruction of the children."

Johnathan Tyler Fund

\$10,000.00. Annual interest, \$600.00

Resolutions, numbered 14 and 74, passed by the City Council, May, 1878: "That the City of Lowell be appointed trustee of the sum of \$10,000.00 and that the City Treasurer is authorized to pay to the Ministry-at-Large the interest of said sum at the rate of 6 per cent for ever. Said sum to be used for the benefit of the worthy poor of the city. Said Ministry shall make an annual report of their dispensing said money to the City Council."

Trust Funds Held by City

Name	Amount	Receipts	Payments
Thomas Nesmith	\$25,000.00	*	\$1,500.00
Thomas Nesmith	1,000.00	*	60.00
Johnathan Tyler	10,000.00	*	600.00
Hapgood Wright	1,000.00	†146.82	146.82
Cemetery Fund	60,550.00	‡2,422.09	2,047.07

John Davis Fund

Present value of fund	109,524.28
...	
Savings Bank Accounts	3,192.49
Bonds	63,555.00
Stocks:	
Railroad	15,415.00
Bank	5,862.00
Miscellaneous	13,214.00
Notes	2,750.00
Silverware and Jewelry	90.15
Cash, A. G. Stiles, City Treasurer	5,445.64
	<u>109,524.64</u>

* No interest received by City, but City pays 6 per cent, per resolutions.

† Interest received by City and deposited in bank, per resolution.

‡ Interest received by City and paid to Cemetery Trustees at 4 per cent, per resolution.

TRUST FUNDS—Continued

Savings Bank Books

Name of Bank	Present Value
City Institution	1,020.00
City Institution	609.72
Merrimack River	1,131.53
Central	431.24
	<hr/> 3,192.49

Registered Bonds

Name	Due	Present Value
City of Boston	1919 3½	9,750.00
Boston & Maine R. R.	1944 4½	11,495.00
Boston & Albany R. R.	1952 3½	3,560.00
N. Y., N. H. & H. R. R.	1914 4	10,000.00
N. Y. N. H. & H. R. R.	1954 4	9,900.00
Illinois Central R. R.	1952 3½	8,950.00
Boston & Maine	1926 4	9,900.00
		<hr/> 63,555.00

Stocks

No. of Shares	Name	Present Value
50	Merrimack Manufacturing Co.	55 \$2,750.00
3	Lowell Bleachery	140 420.00
12	Middlesex Company	50 600.00
49	Bigelow Carpet Company	141 6,909.00
6	Nat. Bank of Commerce	173½ 1,041.00
9	Appleton Nat. Bank, Lowell	104 936.00
3	Old Lowell Nat. Bank, Lowell	101 303.00
2	Wamesit Nat. Bank, Lowell	101 202.00
11	Union Nat. Bank, Lowell	180 1,980.00
10	First Nat. Bank, West Newton	140 1,400.00
41	Boston & Maine R. R. (Common)	149 6,109.00
39	Boston & Albany R. R.	228 8,892.00
1	Nashua & Lowell R. R.	245 245.00
1	Concord & Montreal R. R., Class 4.....	169 169.00
3	Lowell Gas Light Co.	285 855.00
12	American Tel. & Tel. Co.	140 1,680.00
6	Hudson River Telephone Co.	38
		<hr/> \$34,491.00

TRUST FUNDS—Continued

Notes		
Kind	Appraised	Present Value
Three Mortgage Notes	$\left\{ \begin{array}{l} 2,000.00 \\ 650.00 \\ 100.00 \end{array} \right\}$	2,750.00
		<hr/>
Silverware and Jewelry		2,750.00
		90.15
Cash, A. G. Stiles, City Treasurer		5,445.64
		<hr/>
		109,524.28
		<hr/>

I hereby certify that I have examined all preceding trust funds, accounts and securities belonging to them held for public uses, and find them correct.

Attest: CHAS. D. PAIGE,

City Auditor

April 1, 1910

SCHEDULE J

CITY DEBT LIMIT OF INDEBTEDNESS
PAYMENTS OF LOANS AND INTEREST

CITY DEBT	
Ordinary City Debt, Jan. 1, 1909	\$2,475,038.40
Borrowed during the year	172,900.00
Total	2,647,938.40
Paid during the year 1909	283,734.20
Total Ordinary City Debt Dec. 31, 1909.....	\$2,364,204.20
Water Debt Jan. 1, 1909	1,121,600.00
Paid during the year	15,200.00
Total Water Debt Dec. 31, 1909	1,106,400.00
Total City Debt Dec. 31, 1909	3,470,604.20
Ordinary City Debt Dec. 31, 1909	2,364,204.20
Sinking Funds for payment of same	375,358.10
Net Ordinary City Debt Dec. 31, 1909	1,988,846.10
Water Debt Dec. 31, 1909	1,106,400.00
Sinking Funds for the payment of same	584,580.62
Net Water Debt Dec. 31, 1909	521,819.38
Total Net Debt Dec. 31, 1909	2,510,665.48
Total Net Debt Dec. 31, 1908	2,701,109.40
Total Net Debt Dec. 31, 1909	2,510,665.48
Decrease in City Debt during 1909	190,443.92
Net Ordinary City Debt Dec. 31, 1908	2,129,742.26
Net Ordinary City Debt Dec. 31, 1909	1,988,846.10
Decrease in Net Ordinary City Debt	140,896.16

Limit of Indebtedness

Total City Debt Dec. 31, 1909	\$3,472,604.20
Deduct—Water Loans	\$1,106,400.00
Deduct—By Legislation	800,000.00
	1,906,400.00
City Debt as it relates to limit of indebted- ness	1,566,204.20
Limit of Municipal Debt of 1910, 2½ per cent of average valuation for the last three years. \$77,079,032.22	1,926,975.81
City Debt which relates to limit Dec. 31, 1909....	1,566,204.20
Distance from limit Dec. 31, 1909	360,771.61
Distance from limit Dec. 31, 1908	213,708.79
Increase in distance from limit	147,062.82

AMOUNT DUE FROM THE CITY ON ORDINARY CITY DEBT

1910

Loan Payable to	Date Made	Due	Present Amount of Loan	Am't of Annual Payment due 1910	Rate	Amount of interest due payable in January, July
Sundry Persons (bonds)	July 1, 1896	1926	\$200,000.00		4	\$8,000.00
Lowell Institution for Savings	July 27, 1901	1911	11,900.00	5,950.00	3 1/4	38,675.00
Central Savings Bank	July 14, 1902	1912	1,500.00	500.00	3 1/4	4,875.00
Bond & Goodwin Company	July 1, 1903	1913	54,000.00	13,500.00	4	2,160.00
Central Savings Bank	July 9, 1906	1916	6,000.00	1,500.00	3 1/2	210.00
Washington Institution for Savings	July 20, 1906	1916	22,162.00	3,166.00	4 1/4	941.89
Washington Institution for Savings	Feb. 1, 1900	1910	600.00	600.00	3 1/2	10.50
Central Savings Bank	Aug. 6, 1900	1910	3,000.00	3,000.00	4	120.00
Washington Institution for Savings	Aug. 19, 1901	1911	3,000.00	1,500.00	3 3-10	99.00
Lowell Institution for Savings	Aug. 19, 1901	1911	11,000.00	5,500.00	3 3-10	181.50
Lowell Institution for Savings	Aug. 9, 1904	1914	39,500.00	7,900.00	3 5/8	715.93
Lowell Institution for Savings	Aug. 7, 1906	1916	21,000.00	3,000.00	4 1/4	892.50
Washington Institution for Savings	Aug. 7, 1906	1916	10,710.00	1,530.00	4 1/4	455.17
National Life Ins. Co.	Aug. 10, 1907	1917	20,000.00	2,500.00	4 1/2	900.00
National Life Ins. Co.	Aug. 1, 1907	1917	10,000.00	1,250.00	4 1/2	450.00
National Life Ins. Co.	Aug. 1, 1907	1917	7,600.00	950.00	4 1/2	342.00
National Life Ins. Co.	Aug. 1, 1907	1917	20,000.00	2,500.00	4 1/2	900.00
Washington Institution for Savings	Aug. 24, 1907	1917	4,400.00	550.00	4 1/2	198.00
Philip Dexter	Aug. 1, 1908	1918	6,570.00	750.00	4	262.80
Philip Dexter	Aug. 1, 1908	1918	10,350.00	1,150.00	4	414.00
Philip Dexter	Aug. 1, 1908	1918	6,300.00	700.00	4	252.00
Philip Dexter	Aug. 1, 1908	1918	22,500.00	2,500.00	4	900.00
Philip Dexter	Aug. 1, 1908	1918	3,150.00	350.00	4	126.00

	Mar. 6, 1871	1912	\$25,000.00	6	March-September
Bequest of Thomas Nesmith	Sept. 4, 1902	1912	16,644.00	3 $\frac{3}{8}$	\$1,500.00
Lowell Institution for Savings	Sept. 11, 1902	1912	18,496.50	3 $\frac{3}{8}$	561.73
Lowell Institution for Savings	Sept. 8, 1903	1913	17,800.00	3 $\frac{7}{8}$	624.26
Lowell Institution for Savings	Sept. 26, 1903	1913	10,000.00	3.9	689.75
Lowell Institution for Savings	Sept. 26, 1905	1915	49,980.00	3 $\frac{1}{2}$	390.00
Salem Savings Bank	Sept. 8, 1906	1910	1,500.00	3 $\frac{1}{2}$	1,749.30
Blodgett Merritt Co.	Sept. 1, 1909	1919	50,000.00	4	26.25
City Trust Co.	Sept. 1, 1909	1919	900.00	4	2,000.00
					36.00
					April-October
Bequest of Thomas Nesmith	April 10, 1871		1,000.00	6	60.00
Sundry Persons (bonds)	Oct. 1, 1890	1920	450,000.00	4	18,000.00
Sundry Persons (bonds)	April 1, 1891	1912	150,000.00	4	6,000.00
Lowell Institution for Savings	April 3, 1900	1910	6,800.00	3 $\frac{1}{8}$	106.25
Lowell Institution for Savings	April 14, 1900	1910	350.00	3 $\frac{1}{8}$	5.47
Lowell Institution for Savings	April 21, 1900	1912	3,850.00	3 $\frac{1}{8}$	60.16
Washington Institution for Savings	Oct. 15, 1900	1910	1,800.00	3 $\frac{1}{2}$	63.00
Lowell Institution for Savings	Oct. 31, 1900	1910	3,000.00	3 $\frac{1}{2}$	105.00
Lowell Institution for Savings	April 6, 1905	1915	36,000.00	3 $\frac{3}{8}$	1,181.25
Lowell Institution for Savings	Oct. 26, 1905	1915	46,440.00	3 $\frac{1}{2}$	1,625.40
Lowell Institution for Savings	Oct. 2, 1906	1916	18,690.00	4 $\frac{1}{8}$	770.96
					May-November
Bequest of Jonathan Tyler	May 10, 1879	Sept.	10,000.00	6	\$600.00
Lowell Institution for Savings	May 22, 1900	1910	1,200.00	3 $\frac{1}{8}$	18.75

Amount Due from the City on Ordinary City Debt, 1910, Continued

Loan Payable to	Date Made	Due	Present Amount of Loan	Am't of Annual Payment due 1910	Rate	Amount of Interest due payable in May-November
Central Savings Bank	May 4, 1901	1911	1,740.00	870.00	3½	45.68
Lowell Institution for Savings	May 23, 1901	1911	7,200.00	3,600.00	3¼	175.50
Washington Institution for Savings	Nov. 4, 1902	1912	2,505.00	835.00	3½	87.60
Lowell Institution for Savings	Nov. 15, 1901	1911	5,980.00	2,990.00	3.3	199.34
Washington Institution for Savings	Nov. 13, 1903	1913	3,448.00	862.00	3⅞	133.61
Lowell Institution for Savings	May 24, 1904	1914	25,000.00	5,000.00	3⅝	815.63
Lowell Institution for Savings	Nov. 5, 1904	1914	26,450.00	5,290.00	3⅝	958.80
Washington Institution for Savings	Nov. 28, 1905	1915	1,320.00	220.00	3½	46.20
Lowell Institution for Savings	May 8, 1906	1916	28,000.00	4,000.00	4	1,040.00
Sundry Persons (bonds)	Nov. 1, 1907	1917	92,800.00	11,603.00	4½	4,176.00
Sundry Persons (bonds)	Nov. 1, 1907	1917	4,800.00	600.00	4½	216.00
Boston Five Cents Savings Bank	May 15, 1908	1918	17,100.00	1,900.00	4	646.00
Boston Five Cents Savings Bank	May 15, 1908	1918	10,800.00	1,200.00	4	408.00
Boston Five Cents Savings Bank	May 15, 1908	1918	67,500.00	7,500.00	4	2,550.00
Boston Five Cents Savings Bank	Nov. 16, 1908	1918	103,500.00	11,500.00	4	4,140.00
June-December						
Commonwealth of Massachusetts	Dec. 26, 1900	1910	750.00	750.00	3½	26.25
Lowell Institution for Savings	Dec. 20, 1901	1911	2,400.00	1,200.00	3.3	79.20
Lowell Institution for Savings	June 3, 1902	1912	19,170.00	6,390.00	3¼	623.02
Lowell Institution for Savings	Dec. 31, 1902	1912	6,000.00	2,000.00	3.55	185.50
Lowell Institution for Savings	June 1, 1903	1913	39,080.00	9,770.00	3⅝	1,416.65
Lowell Institution for Savings	Dec. 31, 1903	1913	30,600.00	7,650.00	3.9	1,193.40

Lowell Institution for Savings	Dec. 31, 1904	1914	36,257.00	7,251.40	3 $\frac{5}{8}$	1,314.31
Lowell Institution for Savings	June 1, 1905	1915	42,900.00	7,150.00	3 $\frac{1}{2}$	1,375.37
Washington Institution for Savings	Dec. 30, 1905	1915	7,950.00	1,175.00	3 $\frac{1}{2}$	246.75
Lowell Institution for Savings	Dec. 30, 1905	1915	32,400.00	5,400.00	3 $\frac{1}{2}$	1,134.00
Sundry Persons (bonds)	Dec. 19, 1906	1916	49,700.00	7,100.00	4	1,988.00
Washington Institution for Savings	Dec. 29, 1906	1916	4,060.00	580.00	4	102.40
Sundry Persons (bonds)	June 1, 1907	1917	16,000.00	2,000.00	4	600.00
Sundry Persons (bonds)	June 1, 1907	1917	8,000.00	1,000.00	4	300.00
Commissioners of Sinking Funds	Dec. 5, 1907	1917	1,200.00	150.00	4 $\frac{1}{2}$	54.00
Commissioners of Sinking Funds	Dec. 14, 1907	1917	2,800.00	350.00	4 $\frac{1}{2}$	126.00
Sundry Persons (bonds)	Dec. 16, 1906	1917	60,000.00	7,500.00	4 $\frac{3}{4}$	2,850.00
Sundry Persons (bonds)	Dec. 16, 1907	1917	28,800.00	3,600.00	4 $\frac{3}{4}$	1,300.68
Sundry Persons (bonds)	Dec. 31, 1907	1917	16,000.00	2,000.00	5	800.00
Malden Savings Bank	June 10, 1908	1918	6,660.00	740.00	4	251.60
Malden Savings Bank	June 10, 1908	1918	18,000.00	2,000.00	4	680.00
Sinking Fund Commissioners	Dec. 30, 1908	1918	1,541.70	171.30	4	61.66
Blodgett Merritt Co.	June 10, 1909	1919	120,000.00	12,000.00	3 $\frac{1}{2}$	3,990.00
Sinking Fund Commissioners	Dec. 6, 1909	1919	2,000.00	200.00	4 $\frac{1}{4}$	85.00

Amount Due from City on Water Loans, 1910

Loan payable to	Date Made	Due	Present Amount of Loan	Am't of Annual Payment due 1910	Rate	Amount of Interest due payable in November-August
Blake Bros. & Co.	Nov. 1, 1881	1911	\$75,000.00	.	4	\$3,000.00
Sundry Persons (bond)	Nov. 1, 1890	1920	1,000,000.00		4	40,000.00
Sundry Persons (bond)	Aug. 7, 1895	1910	5,000.00	5,000.00	4	200.00
Roundout Savings Bank	Aug. 8, 1900	1910	7,500.00	7,500.00	4	300.00
Lowell Institution for Savings	Nov. 9, 1909	1916	18,900.00	2,700.00	4½	779.62

Amount of City Debt	Payments	273,914.20
Amount of Water Loan	Payments	15,200.00
Total Gross City Debt		
	Amount of Sinking Fund	289,114.20
		959,938.72
	Total Net City Debt	2,510,665.48

SCHEDULE K

PROPERTY OWNED BY THE CITY AND VALUATION OF SAME AS RELATIVE TO THE CITY DEBT

VALUATION OF CITY PROPERTY

Buildings

City Hall	\$410,000.00
Memorial Building	200,000.00
Police Station	88,000.00
City Scales	750.00
Public Landing and Police Stable.....	9,500.00
Lands and Building on Fletcher St...	3,000.00
Lands and Buildings on Fletcher, Cross, Broadway and Lagrange Sts.	100,000.00
City Farm and Buildings	200,000.00
Rifle Range	14,000.00
	\$1,025,250.00

Fire Engine Houses

Branch Street	22,000.00
Central Street	11,000.00
Fletcher Street	18,000.00
Fourth Street	15,000.00
Gorham Street	27,000.00
High Street	24,000.00
Lincoln Street	5,500.00
Lawrence Street	25,000.00
Merrimack Street	5,000.00
Mammoth Road	15,000.00
Palmer Street	90,000.00
Westford Street	18,000.00
Warren Street	11,000.00
West Sixth Street	38,000.00
	326,000.00

School Houses

High School	250,000.00
High School Annex	105,000.00
Bartlett (old)	25,000.00
Bartlett (new)	108,000.00
Butler	63,000.00
Colburn	25,000.00
Edson	25,000.00

VALUATION OF CITY PROPERTY—Continued

School Houses—Continued

Franklin	\$ 25,000.00
Green	105,000.00
Highland	67,000.00
Lincoln	77,000.00
Moody (new)	80,000.00
Moody (old)	20,000.00
Mann	25,000.00
Pawtucket	53,000.00
Varnum	110,000.00
Washington	90,000.00
Primary Schools—	
Oakland	12,000.00
Powell Street	8,000.00
Plain Street	21,000.00
London Street Annex	1,000.00
London Street	5,000.00
School Street	7,500.00
Pond Street	6,000.00
High Street	9,000.00
Carter Street	52,000.00
Fayette Street	3,500.00
Cross Street	24,000.00
Billings Street	16,000.00
Cabot Street	23,500.00
Middlesex Village (old)	2,000.00
Middlesex Village (new)	16,000.00
West Sixth Street	7,000.00
Mammoth Road	4,000.00
Lakeview Avenue	8,000.00
Ames Street	9,500.00
Tenth Street	9,000.00
Favor Street	28,000.00
Cottage Street	4,500.00
Charles Street	20,000.00
Training	31,000.00
Cheever Street	12,000.00
Chapel Street	4,000.00
Central Street	13,500.00
Howard Street	5,000.00
Worthen Street	25,000.00
Lyons Street	20,000.00
Dover Street	13,500.00
Morrill School	19,000.00
Agawam Street	9,000.00

VALUATION OF CITY PROPERTY—Continued

School Houses—Continued

Grand Street	5,000.00
Kirk Street	18,000.00
Weed Street	10,500.00
Lexington Avenue	10,000.00
Moody Street	20,000.00
Pine Street	23,000.00
Riverside	15,000.00
Greenhalge School	74,200.00
Lyons Street Annex	5,400.00
	<hr/> \$1,959,750.00

Park Department

	Acres	
The Rogers Fort Hill Park	34.40	\$150,000.00
The South Common	22.48	200,000.00
The North Common	11.39	100,000.00
Tyler Park	1.81	8,000.00
Belvidere Park	1.77	20,000.00
Mt. Vernon Park	0.50	4,350.00
Varnum Park	0.135	6,000.00
Monument Square	0.092	15,000.00
Penniman Square	0.051	450.00
Lincoln Square	0.016	200.00
Hovey Square	0.010	50.00
Mansur Square	0.040	150.00
Water Works Square	0.047	500.00
Coburn Square	0.252	1,000.00
Hutchinson Square	0.037	150.00
Lenox Square	0.181	1,500.00
Franklin Square	0.058	1,500.00
Princeton Square	0.028	150.00
Middlesex Square	0.034	200.00
Lincoln Playground	1.525	6,000.00
Fayette St. Playground	0.170	2,000.00
Varnum Ave., Riverbank	0.456	1,500.00
Colonial Ave., Riverbank	3.50	2,000.00
Glacial Oval		100.00
City Hall & Memorial Hall Grounds....	0.50	65,700.00
Lincoln School Grounds	1.02	4,445.00
Highland School Grounds	1.24	5,392.00
Greenhalge School Grounds	2.30	10,000.00
Moody School Grounds	1.18	7,684.00
Riverside School Grounds	1.05	2,281.00
Total	86.272	<hr/> \$611,857.00

Land Owned by the City for Burial Purposes

Date	Location	Grantee	Area	Price	Grantor
Nov. 5, 1810	School St. ‡1	Inhabitants of Chelmsford	1 acre 23 rods	\$23.00	Joel Spaulding
Mar. 31, 1832	Gorham St. ‡2 see below	136 rods in Chelmsford	4 acres 81 rods	428.00	Simon and Susanna Parker
Nov. 16, 1846	" ‡3		30 acres	1,500.00	William and Hannah Spencer
Nov. 25, 1803	" ‡3	Taken by resolution, Nov. 17, 1893.	{ 112,980 sq. ft. 13,846 "	4,236.75	Mary and John Gannon
Nov. 15, 1894	" ‡3	J. J. Pickman, Mayor	{ 10,527 "	692.30	William B. Spaulding
Dec. 24, 1894	" ‡3	or	{ 137,353 " or 3.1 acres	526.35	J. J. Donovan
1893	" ‡3		{ 44,139 sq. ft. 88,428 "	(a) 1,800.00	Seven Ohlson
1894	" ‡3	Taken by resolution, Sept. 10, 1891.	{ 133,606 "	3,290.00	Charles D. Starbard
1899	" ‡3	Geo. W. Fifield, Mayor	{ 266,173 " or 6.1 acres	6,056.95	William Manning
July 20, 1893	" ‡3 annex			50.00	Seven Ohlson
1899	" ‡3		18,972 acres	5,691.60	Chas. W. and Sarah Swan
Dec. 17, 1877	" *		7 acres	2,000.00	T. McOwen

‡1 is the Cemetery on School Street.

‡2 is the old Cemetery on Gorham Street.

‡3 is the new Cemetery on Gorham Street, known as the Edison Cemetery.

*Jan. 1878, \$400.00 was returned to City on purchase of McOwen land, reducing cost to \$1,600.

(a) Paid on execution.

VALUATION

School Street	.....	\$8,000
Gorham Street	.....	35,000
		<u>\$43,000</u>

Miscellaneous Real Estate

Lot of Land on Chelmsford Street	\$ 5,000.00	
Lot of Land on Fletcher and Bowers Streets.....	20,000.00	
Lot of Land on Tenth Street	5,000.00	
Cremator	10,000.00	
Rifle Range, Dracut	2,700.00	
Harris Land, Dracut, 28 acres	600.00,	
Parker Land, Dracut, 20 acres	1,400.00	
Hildreth Land, Dracut, 17 acres	500.00	
Meadow Land, Dracut, 5 acres	275.00	
Swan Land, Dracut, 5 acres	200.00	
Hamblett Land, Wigginvill, 2 acres	400.00	
Clark Road, Gravel Bank, 3 acres	900.00	
		<u>\$49,175.00</u>

Water Works

The Real Estate and Personal Property belonging to the City, occupied and used by Water Works	4,375,888.00	
		<u>4,375,888.00</u>

**Personal Property Owned by the City in Charge of the
Several Departments**

Auditor	650.00
City Clerk	550.00
City Treasurer	700.00
City Weigher	250.00
City Sealer	250.00
City Messenger	1,250.00
City Cemeteries	1,600.00
Clerk of Committees	200.00
Engineering	3,400.00
Elections	1,150.00
Fire Department	177,000.00
Health	10,300.00
Inspector of Milk	900.00
Inspector of Wires	650.00
Law	3,100.00
Library	70,500.00
Mayor	500.00
Charity, Outdoor Relief	4,000.00
Charity and Almshouse	24,000.00

VALUATION OF CITY PROPERTY—Continued

Personal Property Owned by the City—Continued

Police	\$31,200.00	
Public Buildings	15,100.00	
Parks	4,825.00	
Registrars	50.00	
Schools	54,400.00	
Streets	42,800.00	
Sewers	23,315.00	
State Aid	250.00	
Supply	550.00	
Watering Streets	7,450.00	
Bell and Clock, High St. Church	1,000.00	
Lighting	17,000.00	
Boulevard	3,100.00	
	<u> </u>	\$501,990.00

RECAPITULATION OF VALUATION OF CITY PROPERTY
AND CITY DEBT

Buildings	1,025,250.00	
Fire Engine Houses	326,000.00	
School Houses	1,959,750.00	
Park Departments	611,857.00	
Miscellaneous Real Estate	49,175.00	
Water Works	4,375,888.00	
Cemeteries	43,000.00	
Personal Property	501,990.00	
Total Valuation	<u> </u>	8,892,910.00
Gross City Debt	3,470,604.20	
Sinking Funds for Payment	959,938.72	
	<u> </u>	
Gross City Debts less Sinking Funds		<u>2,510,665.48</u>
Excess in Valuation of City Prop- erties over Gross City Debt		<u>6,382,244.52</u>

SCHEDULE L

OUTSTANDING ASSESSMENTS TABLES OF EXPENDITURES
 INSURANCE ON CITY PROPERTY OTHER INFORMATION

Amount of Outstanding Taxes and other Assessments Due the City

TAXES

1899	.....	\$ 492.98	
1901	.....	15,802.69	
1902	.....	18,141.85	
1903	.....	14,242.09	
1904	.....	13,592.90	
1905	.....	13,509.58	
1906	.....	14,446.96	
1907	.....	15,418.53	
1908	.....	185,802.73	
1909	.....	361,284.99	
		<hr/>	\$652,735.30

STREET WATERING ASSESSMENTS

1907	.....	2.40	
1908	.....	2,733.53	
1909	.....	5,198.23	
		<hr/>	7,934.16

SEWER ASSESSMENTS

1885	.....	284.88	
1894	.....	66.80	
1895	.....	52.15	
1896	.....	239.26	
1898	.....	432.32	
1900	.....	16.53	
1902	.....	180.49	
1903	.....	237.28	
1906	.....	173.13	
1908	.....	2,334.29	
1909	.....	11,157.20	
		<hr/>	15,174.33

SIDEWALK ASSESSMENTS

1903	\$ 385.89	
1907	2.65	
1908	713.95	
1909	867.70	
	<u> </u>	\$1,970.19

MOTH ASSESSMENTS

1907	9.75	
1908	789.54	
1909	1,095.85	
	<u> </u>	1,895.14

DEPARTMENTS

Charity Dept. Hospital	1,691.27	
Charity O. D. R.	1,482.70	
Police	57.25	
Schools	20.00	
School Houses	11.00	
Building	47.00	
Streets	307.75	
Sewers	56.70	
Health	10.00	
Wires	18.00	
Cemetery	4,795.00	
	<u> </u>	8,496.67
Total amount of Outstanding Assessments		<u>\$688,205.79</u>

Loans Negotiated by the City since 1900, how expended

Year	For Waterworks	For Current Expenses	For Permanent Improvements	Total Loans
1900	\$75,000.00		\$213,500.00	\$288,500.00
1901		\$40,000.00	216,100.00	256,100.00
1902		26,500.00	196,385.00	222,885.00
1903		43,860.00	343,460.00	387,320.00
1904		113,716.00	140,698.00	254,414.00
1905		165,500.00	194,650.00	360,150.00
1906	27,000.00	94,100.00	126,360.00	247,460.00
1907		136,160.00	239,340.00	365,500.00
1908		131,413.00	173,000.00	304,413.00
1909			172,900.00	172,900.00

Expenditure, Tax Rate, Valuation from 1860

Year	Expenditures	Tax Rate	Total City Valuation
1860	\$ 267,192.07	\$ 8.40	\$22,155,176.00
1865	756,342.81	14.60	21,076,360.00
1870	778,636.03	13.90	25,972,488.00
1875	1,162,922.95	16.20	38,690,495.00
1880	1,398,683.48	16.20	41,102,016.00
1885	1,833,483.69	16.00	51,351,780.00
1890	3,613,584.04	17.00	62,353,612.00
1895	2,903,410.60	18.00	68,885,732.00
1900	3,353,844.41	18.80	71,529,515.00
1905	3,738,502.84	20.20	71,645,718.00
1906	3,795,000.75	19.60	74,945,640.00
1907	3,718,874.34	19.40	76,079,750.00
1908	4,046,987.96	20.40	77,858,891.85
1909	3,791,590.65	19.60	79,695,960.00

VALUATION OF REAL ESTATE AND PERSONAL PROPERTY WITH TAX RATE

Year	Polls	Personal	Real Estate	Total	Rate	Non-Resident Bank Stock	Grand Total Tax
1890	20,021	\$17,037,452	\$45,316,150	\$62,353,612	\$17.00	\$17,096.24	\$1,117,188.21
1891	20,031	17,535,390	46,552,885	64,088,275	15.60	15,956.07	1,057,638.66
1892	22,789	17,213,834	47,503,470	64,717,304	16.80	17,616.16	1,150,506.87
1893	23,511	18,004,970	50,851,600	68,856,570	16.40	17,397.53	1,193,667.27
1894	23,304	17,046,966	52,044,570	69,091,536	17.40	16,786.71	1,265,587.45
1895	23,735	16,526,492	52,359,240	68,885,732	18.00	17,557.16	1,304,970.34
1896	25,320	15,967,762	53,942,710	69,910,472	15.00	14,941.02	1,114,238.10
1897	25,140	15,709,260	54,680,020	70,389,280	17.40	17,302.47	1,292,355.95
1898	24,526	15,350,323	55,626,980	70,977,303	18.00	17,161.06	1,343,804.51
1899	24,882	15,374,232	55,881,355	71,255,587	19.60	18,366.73	1,469,642.32
1900	25,837	15,497,630	56,031,885	71,529,515	18.80	17,330.59	1,413,759.47
1901	25,059	15,425,843	56,248,745	71,674,588	18.60	16,449.04	1,399,714.38
1902	25,263	15,194,442	56,709,315	71,903,757	19.60	19,974.00	1,470,813.64
1903	24,559	15,178,418	56,825,610	72,004,028	20.40	12,954.30	1,530,054.47
1904	25,555	14,841,767	56,773,140	71,614,907	20.00	11,239.36	1,494,647.50
1905	26,087	14,433,923	57,211,795	71,645,718	20.20	12,522.12	1,511,939.62
1906	25,688	15,392,795	58,932,980	74,325,775	19.60	12,149.35	1,520,310.55
1907	25,181	16,763,821	59,690,910	75,454,738	19.40	12,125.23	1,526,309.15
1908	25,118	17,268,891	60,590,000	77,858,891	20.40	10,196.39	1,648,753.78
1909	26,460	17,880,477	61,296,360	79,695,960	19.60	10,174.81	1,614,960.82

STREET DEPARTMENT

Number of miles of accepted streets, January 1, 1909	134.75
Number of miles of streets accepted in 1909 .....	.69
Total mileage of streets accepted	<u>135.44</u>

SEWER DEPARTMENT

Length of sewers laid to January 1, 1910.....103.61. Costing.....\$6,275,431.66

PAYMENTS TO BE MADE TO SINKING FUNDS IN 1910

City Hall and Memorial Buildings, due 1920.....	\$7,500.00	\$450,000.00
High School, due 1921.....	3,000.00	150,000.00
New School Houses, due 1926.....	4,000.00	200,000.00
Water Loans, due 1920.....	16,000.00	1,000,000.00
High Service Water Supply, due 1911.....		75,000.00
	<u>30,500.00</u>	<u>1,875,000.00</u>

SCHOOL DEPARTMENT**Cost of Supervision—**

Superintendent	3,000.00
Office assistant	600.00
Four truant officers	3,683.32
Supply Clerk	<u>656.75</u>

7,940.07

Cost of Teachers and Janitors:—

High School	41,015.51
Bartlett School	8,883.26
Butler School	12,824.52
Edson School	9,614.90
Green School	9,949.90
Greenhalge School	6,077.99
Highland School	13,356.43
Lincoln School	9,184.20
Moody School	8,764.89
Pawtucket School	6,416.26
Riverside School	1,939.14
Varnum School	11,572.35
Washington School	1,223.02
Primary and Mixed Schools	<u>85,929.93</u>

SCHOOL DEPARTMENT—Continued

Training School	11,668.98	
Kindergartens	12,412.76	
Special Teachers	4,326.50	
Evening High and Elementary	15,364.25	
Evening Drawing and Art	2,569.00	
Janitors, day schools	43,929.36	
Janitors, evening schools	2,985.50	
		<hr/>
		\$329,628.62
Supplies		49,151.09
		<hr/>
		378,779.71

	Number	Salaries
Teachers in day schools	347	\$257,927
Janitors for day schools	56	44,520
Teachers in evening schools	139	15,980
Janitors for evening schools	25	3,000
School physicians and helper	10	2,400
Superintendent, truant officers, clerk, etc	7	8,554
		<hr/>
Totals of employees and of salaries	584	\$332,381

COST OF NEW WASHINGTON SCHOOL

Appropriation 1907 for Building	\$75,000.00	
Appropriation 1909 for Building	12,500.00	
		<hr/>
		87,500.00
Appropriation for Land		2,200.00
		<hr/>
		89,700.00
Expended		87,521.13
		<hr/>
Balance June 1, 1910		2,178.87

INSURANCE ON CITY PROPERTY

INSURANCE ON	AMOUNT	AGENT	COMPANY	EXPIRES
City Hall Boilers	\$25,000.00	E. M. Tucke	Hartford	Jan. 9, 1911
School Boilers	10,000.00	N. G. Norcross	Fidelity	Apr. 10, 1912
Hospital Boilers	10,000.00	N. G. Norcross	Fidelity	May 21, 1912
62 Boilers	10,000.00	T. L. Dickey	Casualty	Dec. 20, 1910
Total	55,000.00			
Cemetery	1,500.00	E. M. Tucke	Traders & Mech.	Dec. 15, 1912
Cemetery	1,000.00	E. M. Tucke	Concordia	Dec. 15, 1912
Total	2,500.00			
City Farm	2,500.00	F. M. Brogan	Reliance	Oct. 26, 1912
City Farm	3,000.00	Miller & Son	Teutonia	Nov. 1, 1912
City Farm	2,500.00	Miller & Son	National Union	Nov. 1, 1912
City Farm	1,500.00	Smith & Cavanaugh	Shawnee	Nov. 1, 1912
City Farm	3,000.00	Miller & Son	Farmers	Nov. 1, 1912
City Farm	2,000.00	F. C. Church	Liverpool & L.	Nov. 15, 1912
City Farm	2,500.00	F. C. Church	Aetna	July 1, 1913
City Farm	1,000.00	F. B. Murphy	Jefferson	Nov. 1, 1912
City Farm	1,000.00	Joseph Peabody	Hamburg Bremen	July 7, 1912
City Farm	1,250.00	Smith & Cavanaugh	German	Apr. 1, 1913
City Farm	2,500.00	E. G. Russell	German	Apr. 1, 1913
City Farm	1,250.00	E. M. Tucke	Lowell Mutual	Oct. 28, 1912

Insurance on City Property—Continued

INSURANCE ON	AMOUNT	AGENT	COMPANY	EXPIRES
City Farm	1,000.00	Smith & Cavanaugh	German	Oct. 1, 1912
City Farm	2,500.00	E. M. Tucke	Traders & Mech.	Nov. 1, 1912
City Farm	1,250.00	Smith & Cavanaugh	Shawnee	Apr. 1, 1913
City Farm	2,000.00	E. G. Russell	Glens Falls	Oct. 1, 1912
City Farm	2,000.00	E. G. Russell	American Central	Oct. 1, 1912
City Farm	2,500.00	E. G. Russell	New Brunswick	Apr. 1, 1913
City Farm	2,500.00	E. G. Russell	Glens Falls	Apr. 1, 1913
City Farm	1,500.00	Joseph Peabody	Salem Mutual	Oct. 16, 1912
City Farm	1,000.00	Joseph Peabody	Lynn Mutual	Oct. 16, 1912
City Farm	1,250.00	E. M. Tucke	Norfolk Mutual	Oct. 28, 1912
City Farm	2,500.00	F. M. Brogan	Reliance	Oct. 26, 1912
City Farm	1,000.00	G. E. Metcalf	Rochester German	Nov. 1, 1912
City Farm	2,500.00	Smith & Cavanaugh	German	Nov. 1, 1912
City Farm	1,000.00	Smith & Cavanaugh	Commerce	Nov. 1, 1912
City Farm	2,500.00	T. C. Lee & Co.	St. Paul	Apr. 1, 1913
Total	51,000.00			
City Hall	5,000.00	F. C. Church	Palatine	Dec. 24, 1912
City Hall	5,000.00	F. C. Church	Aetna	Dec. 24, 1912
City Hall	5,000.00	F. C. Church	Franklin	Dec. 24, 1912
City Hall	5,000.00	E. M. Tucke	Concordia	Jan. 19, 1910
City Hall	5,000.00	W. D. Brown	London	Jan. 19, 1913

City Hall	5,000.00	H. A. Wright	Ben Franklin	Mar.	24, 1911
City Hall	5,000.00	Smith & Cavanaugh	Albany	Mar.	15, 1911
City Hall	5,000.00	Smith & Cavanaugh	Shawnee	Mar.	15, 1911
City Hall	5,000.00	Smith & Cavanaugh	German	Mar.	15, 1911
City Hall	5,000.00	M. J. Sharkey	Prussian National	Apr.	1, 1911
City Hall	5,000.00	E. M. Tueke	Camden	Apr.	1, 1911
City Hall	5,000.00	Joseph Peabody	Phoenix	Jan.	19, 1913
City Hall	5,000.00	Russell Fox	Rochester German	Jan.	19, 1913
City Hall	5,000.00	T. L. Dickey	Milwaukee Mechanics	Mar.	15, 1911
City Hall	5,000.00	T. L. Dickey	Milwaukee	Mar.	15, 1911
City Hall	5,000.00	A. R. Campbell	Commerce	May	1, 1912
City Hall	10,000.00	Collins & Hogan	Commercial Union	Mar.	20, 1912
City Hall	5,000.00	F. M. Brogan	Aachen & Munich	Apr.	12, 1912
City Hall	5,000.00	T. C. Lee	German	May	1, 1912
City Hall	5,000.00	T. C. Lee	Calumet	Mar.	20, 1912
City Hall	15,000.00	T. C. Lee	Northern	May	14, 1912
City Hall	5,000.00	F. C. Church	Liverpool L. & G.	Jan.	12, 1913
Total		125,000.00			
City Hall and Contents	5,000.00	F. C. Church	Royal	Jan.	12, 1913
City Hall and Contents	5,000.00	F. C. Church	Continental	Jan.	12, 1913
City Hall and Contents	5,000.00	F. C. Church	New Hampshire	Jan.	12, 1913
City Hall and Contents	5,000.00	F. C. Church	North America	Jan.	12, 1913
Total		20,000.00			

Insurance on City Property—Continued

INSURANCE ON	AMOUNT	AGENT	COMPANY	EXPIRES
City Hall and Memorial Building	\$11,250.00	N. G. Norcross	Phenix	Jan. 1, 1913
City Hall and Memorial Building	11,250.00	N. G. Norcross	The Home	Jan. 1, 1913
City Hall and Memorial Building	7,500.00	Joseph Peabody	Providence Wash.	Jan. 19, 1913
City Hall and Memorial Building	10,000.00	Joseph Peabody	London	Jan. 19, 1913
Total	40,000.00			
Greenhalge School	5,000.00	T. C. Lee	Fidelity	Apr. 1, 1913
Greenhalge School	5,000.00	T. C. Lee	Germania	Apr. 1, 1913
Greenhalge School	5,000.00	T. C. Lee	Boston	Apr. 1, 1913
Total	10,000.00			Apr. 1, 1913
Health Department	25,000.00			
Health Department	2,000.00	F. C. Church	German American	July 3, 1910
Health Department	2,000.00	T. C. Lee	Pennsylvania	Jan. 19, 1911
Total	4,000.00			
High School	5,000.00	T. L. Dickey	Concordia	Mar. 5, 1911
High School	10,000.00	F. C. Church	North America	Feb. 9, 1911
High School	5,500.00	T. C. Lee	Germania	Feb. 16, 1911
High School	5,500.00	T. C. Lee	Boston	Feb. 16, 1911
High School	5,000.00	Miller & Son	Teutonia	Feb. 16, 1911
High School	5,000.00	Miller & Son	National Union	Feb. 16, 1911

High School	10,000.00	W. D. Brown	The London	Feb.	16, 1911
•High School	5,000.00	Joseph Peabody	The Phoenix	Feb.	16, 1911
High School	5,000.00	Joseph Peabody	The Providence	Feb.	16, 1911
High School	5,000.00	F. M. Brogan	Aachen & Munich	Mar.	5, 1911
High School	10,000.00	E. E. Mansur	New England	Feb.	17, 1911
High School	10,000.00	N. G. Norcross	The Home	Feb.	16, 1911
High School	5,000.00	F. B. Murphy	Pennsylvania	Mar.	5, 1911
High School	2,000.00	F. B. Murphy	Rochester German	Mar.	5, 1911
High School	2,000.00	F. B. Murphy	Union	Mar.	5, 1911
High School	5,000.00	G. B. Coburn	American	Feb.	16, 1911
High School	5,000.00	G. B. Coburn	Law Union & Crown	Feb.	16, 1911
High School	5,000.00	G. D. Kimball	Eastern	Feb.	16, 1911
High School	5,000.00	G. D. Kimball	German Alliance	Feb.	16, 1911
High School	5,000.00	F. M. Brogan	Girard	Feb.	16, 1911
High School	5,000.00	F. M. Brogan	Williamsburg	Feb.	16, 1911
High School	5,000.00	G. R. Whidden	Fireman's	Mar.	9, 1911
High School	5,000.00	G. R. Whidden	Agricultural	Mar.	9, 1911
Total		131,000.00			
High School Annex	2,815.00	F. B. Murphy	National	Mar.	5, 1911
High School Annex	2,815.00	Miller & Co.	Teutonia	Feb.	16, 1911
High School Annex	2,815.00	F. B. Murphy	Pennsylvania	Mar.	5, 1911
High School Annex	2,815.00	F. B. Murphy	Union	Mar.	5, 1911
High School Annex	2,815.00	G. R. Whidden	Delaware	Mar.	9, 1911
High School Annex	2,815.00	F. B. Murphy	Rochester German	Mar.	5, 1911
High School Annex	2,815.00	G. R. Whidden	Agricultural	Mar.	9, 1911

Insurance on City Property—Continued

INSURANCE ON	AMOUNT	AGENT	COMPANY	EXPIRES
High School Annex	5,630.00	J. Donohoe	Detroit	Mar. 5, 1911
High School Annex	5,630.00	F. C. Church	North America	Mar. 9, 1911
High School Annex	5,630.00	T. C. Lee	Pennsylvania	Feb. 16, 1911
High School Annex	2,815.00	Miller & Son	Farmers	Feb. 16, 1911
High School Annex	5,630.00	W. D. Brown	London	Feb. 16, 1911
High School Annex	5,630.00	N. G. Norcross	Phenix	Feb. 16, 1911
High School Annex	5,630.00	E. A. Mansur	N. E. Underwriters	Feb. 17, 1911
High School Annex	5,630.00	Joseph Peabody	Providence W.	Feb. 16, 1911
High School Annex	2,815.00	T. C. Lee	Rochester German	Feb. 16, 1911
High School Annex	2,815.00	G. D. Kimball	Williamsburg	Feb. 16, 1911
High School Annex	2,500.00	G. D. Kimball	Eastern	Feb. 16, 1911
High School Annex	3,130.00	G. D. Kimball	German Alliance	Feb. 16, 1911
High School Annex	2,815.00	G. B. Coburn	Law Union & Crown	Feb. 16, 1911
High School Annex	2,815.00	G. B. Coburn	American	Feb. 16, 1911
Total	78,820.00			
Memorial Building	2,500.00	J. F. Donohoe	Security	Dec. 1, 1912
Memorial Building	5,000.00	T. C. Lee	Albany	May 1, 1912
Memorial Building	5,000.00	A. R. Campbell	Northwestern Nat.	May 1, 1912
Memorial Building	2,500.00	F. M. Brogan	Allemandia	Apr. 12, 1912
Memorial Building	2,500.00	F. M. Brogan	County Fire	Apr. 12, 1912
Memorial Building	12,000.00	Collins & Hogan	Commercial Union	Mar. 20, 1912
Memorial Building	4,000.00	Collins & Hogan	Mercantile & Marine	Mar. 20, 1912
Memorial Building	4,000.00	Collins & Hogan	Western	Mar. 20, 1912
Memorial Building	2,500.00	Russell Fox	Williamsburg City	Jan. 19, 1913

Memorial Building	5,000.00	F. C. Church	Hartford	Jan.	12, 1913
Memorial Building	5,000.00	F. C. Church	Queen	Jan.	12, 1913
Memorial Building	2,500.00	W. D. Brown	Hamburg Bremen	Jan.	19, 1913
Memorial Building	2,500.00	T. L. Dickey	Milwaukee Fire	Mar.	15, 1911
Memorial Building	2,500.00	T. L. Dickey	Milwaukee Mechanics	Mar.	15, 1911
Memorial Building	5,000.00	F. M. Brogan	Aachen Munich	Mar.	22, 1911
Memorial Building	10,000.00	J. F. Donohoe	American Central	Mar.	13, 1911
Memorial Building	5,000.00	T. C. Lee	St. Paul	Mar.	16, 1911
Memorial Building	5,000.00	T. C. Lee	United Fireman's	Mar.	16, 1911
Memorial Building	5,000.00	T. C. Lee	Westchester	Mar.	16, 1911
Memorial Building	7,500.00	T. C. Lee	Boston Insurance	Mar.	16, 1911
Memorial Building	2,500.00	T. C. Lee	Western	Mar.	16, 1911
Memorial Building	5,000.00	J. F. Donohoe	German American	Dec.	1, 1912
Memorial Building	2,500.00	J. F. Donohoe	Detroit	Dec.	1, 1912
Total		105,000.00			

Memorial Building and Contents	2,000.00	E. M. Tucke	Svea	Mar.	1, 1914
Memorial Building and Contents	5,000.00	N. G. Norcross	Equitable	Mar.	1, 1914
Memorial Building and Contents	2,500.00	F. C. Church	Niagara	Mar.	15, 1914
Memorial Building and Contents	2,500.00	F. C. Church	Liverpool & L.	Mar.	15, 1914
Memorial Building and Contents	1,500.00	T. C. Lee	Germania	Mar.	1, 1914
Memorial Building and Contents	3,000.00	Joseph Peabody	Phoenix	Mar.	1, 1914
Memorial Building and Contents	1,500.00	Joseph Peabody	Providence W.	Mar.	1, 1914
Memorial Building and Contents	1,500.00	Joseph Peabody	London	Mar.	1, 1914
Memorial Building and Contents	2,000.00	N. G. Norcross	Norwich Union	Mar.	1, 1914

Insurance on City Property—Continued

INSURANCE ON	AMOUNT	AGENT	COMPANY	EXPIRES
Memorial Building and Contents	5,000.00	N. G. Norcross	Granite State	Mar. 1, 1914
Memorial Building and Contents	1,500.00	T. C. Lee	Buffalo German	Mar. 1, 1914
Memorial Building and Contents	1,500.00	T. C. Lee	Western	Mar. 1, 1914
Memorial Building and Contents	1,500.00	T. C. Lee	Northern	Mar. 1, 1914
Memorial Building and Contents	2,500.00	F. C. Church	Phoenix	Mar. 15, 1914
Memorial Building and Contents	4,000.00	E. M. Tucke	North River	Mar. 1, 1914
Memorial Building and Contents	2,500.00	F. C. Church	Aetna	Mar. 15, 1914
Total	40,000.00			
Miscellaneous	5,000.00	N. G. Norcross	Fidelity & C.	Aug. 1, 1912
		(Insurance against accident from steam boiler at City Ledger)		
Miscellaneous	10,000.00	Joseph Peabody	Casualty	Oct. 17, 1910
		(Insurance against accident of passengers on City Elevator)		
Miscellaneous	10,000.00	T. L. Dickey	U. S. Casualty	Dec. 1, 1910
		(Insurance against accident from one story ash-lift at Worthen, Merrimack and Moody Street)		
Miscellaneous	1,400.00	F. C. Church	Continental	Jan. 1, 1915
		(Frame building on the southerly side of Richard Street)		
Miscellaneous	1,000.00	E. M. Tucke	North River	Nov. 15, 1910
		(Oil painting and frame portrait of James B. Francis while contained in the frame building known as the Whistler House) (Certificate of safe transportation attached to policy)		
Total	27,400.00			
Old Moody School	2,500.00	J. F. Donohoe	American Central	July 14, 1910
Old Moody School	2,500.00	J. F. Donohoe	American	July 14, 1910
Total	5,000.00			

Park Department		N. G. Norcross	Phenix	Feb.	1, 1911
Park Department		N. G. Norcross	The Home	May	9, 1910
Park Department		N. G. Norcross	The Phenix	May	9, 1910
Park Department		N. G. Norcross	The Home	Feb.	1, 1911
Park Department		F. C. Church	The Travelers	June	4, 1910
Total		22,000.00			
Portraits		\$1,500.00	Connecticut	Mar.	29, 1913
Portraits		2,500.00	New Hampshire	Mar.	29, 1913
Portraits	(Appleton, Boott Francis, Jackson, Lawrence, Lowell, and Washington)	1,500.00	Philadelphia	Mar.	29, 1913
Portraits		2,500.00	No. British & N.	Mar.	29, 1913
Portraits		1,000.00	Palatine	May	1, 1913
Portraits		1,000.00	Phoenix	Apr.	7, 1913
Total		10,000.00			
Rifle Range		1,000.00	Phoenix	Feb.	16, 1911
Rifle Range		1,000.00	Providence Wash.	Feb.	16, 1911
Rifle Range		1,000.00	London	Feb.	16, 1911
Total		3,000.00			

Insurance on City Property—Continued

INSURANCE ON	AMOUNT	AGENT	COMPANY	EXPIRES
Street Department	1,500.00	T. C. Lee	Boston	Feb. 23, 1911
Street Department	3,000.00	J. Donohoe	Detroit	Feb. 23, 1911
Street Department	1,500.00	J. Donohoe	American	Feb. 23, 1911
Street Department	1,500.00	J. Donohoe	Security	Feb. 23, 1911
Street Department	1,500.00	T. C. Lee	St. Paul	Feb. 23, 1911
Street Department	1,000.00	T. C. Lee	Westchester	Feb. 23, 1911
Total	10,000.00			
Training School	3,000.00	J. F. Donohoe	American	Mar. 13, 1911
Training School	12,000.00	J. F. Donohoe	American Central	Mar. 13, 1911
Total	15,000.00			
Washington School	5,000.00	E. M. Tucke	Concordia	Jan. 28, 1911
Washington School	5,000.00	E. M. Tucke	Michigan Commercial	Jan. 28, 1911
Washington School	5,000.00	E. M. Tucke	Camden	Jan. 28, 1911
Washington School	5,000.00	E. M. Tucke	Duchess	Jan. 28, 1911
Washington School	5,000.00	E. M. Tucke	Svea	Jan. 28, 1911
Washington School	10,000.00	E. M. Tucke	North River	Jan. 28, 1911
Total	35,000.00			
Wigginville School	2,000.00	T. C. Lee	St. Paul	Mar. 9, 1914
Wigginville School	2,500.00	T. C. Lee	Boston	Mar. 9, 1914
Wigginville School	2,500.00	T. C. Lee	Westchester	Mar. 9, 1914
Wigginville School	2,500.00	T. C. Lee	Pennsylvania	Mar. 9, 1914

Wigginville School	T. C. Lee	Germania	Mar.	9, 1914
Wigginville School	T. C. Lee	Western	Mar.	9, 1914
Total	14,000.00			

WATER DEPARTMENT INSURANCE

Horses	Lee & Co.		Mar.	13, 1913
Supt. House	Norcross		Dec.	26, 1914
Barn—Boulevard	Miller & Son		June	6, 1911
Boulevard Upper P. S.	Miller & Son		Apr.	24, 1910
Boulevard Upper P. S.	Lee & Co.		Nov.	3, 1912
Boulevard Upper P. S.	Miller & Son		Sept.	15, 1910
Boulevard Lower P. S.	Miller & Son		Nov.	30, 1910
Boulevard Lower P. S.	Lee & Co.		May	27, 1911
Centralville P. S. }	Norcross		Jan.	1, 1915
Shop and Stable	Norcross		Feb.	7, 1915
Shop and Stable	Lee & Co.		Jan.	1, 1915
Shop and Stable	Lee & Co.		Feb.	7, 1915
Shop and Stable	Church & Son		Jan.	1, 1915
Shop and Stable	Church & Son		Feb.	15, 1915
Shop and Stable	Miller & Son		Feb.	7, 1915
Cook P. S.	Miller & Son		Apr.	24, 1910
Boilers—Blanket	E. M. Tucke		July	3, 1911
Holly Pump	Miller & Son		June	29, 1913

SCHEDULE M

GENERAL TREASURY FUND

Receipts and Payments by Departments

Table of Balances, Appropriations, Receipts and Expenditures

From January 1, 1909, to December 31, 1909

ACCOUNTS ARRANGED BY SCHEDULE							
	Balances from 1908	Appropriation from Revenue	Appropriation from Loans	Department Transfers	Receipts Cash	Total Appropriated	Total Expenditures
							Returned to G.T.F.
							Balances to 1910
1—TAXES							
I-1 County Tax		84553.16				84553.16	
I-2 State Tax		98685.00				98685.00	
I-3 Corporation Tax		138.51				138.51	
I-4 National Bank Tax		10174.81				10091.41	83.40
		193551.48				193551.48	83.40
2—LICENSES							
2-2 Liquor Licenses		45000.00				45000.00	1862.00
3—SPECIAL ASSESSMENTS							
3-1 Street Watering							
3-2 Moths		4.00				4.00	4.00

4—TAX ABATEMENTS

4-1	Abatements	166.96	166.96
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5—GENERAL GOVERNMENT

5-1	Incidentals	2387.89	24.00	6.50	2418.39	2418.39
5-2	Clerk Committees, S.	1400.00			1400.00	1400.00
	Clerk Committees, O. E.....	150.00			150.00	149.90 .10
5-3	Clerk Council	300.00			300.00	300.00
5-4	Mayor, S.	4200.00			4200.00	4197.30 2.70
	Mayor, O. E.	158.00		4.15	162.15	162.15
5-5	Auditor, S.	3890.00			3890.00	3890.00
	Auditor, O. E.	1611.29	115.60		1726.89	1726.89
5-6	Treasurer, S.	8582.00			8582.00	8582.00
	Treasurer, O. E.	2744.30			2744.30	2744.30
5-7	Assessors, S.	12003.00			12003.00	12003.00
	Assessors, O. E.	884.65			884.65	884.65
	Assessors, Tax Book	1637.75			1637.75	1637.75
5-8	City Clerk, S.	5282.34			5282.34	4792.34 490.00
	City Clerk, O. E.	1300.00			1300.00	1124.22 175.78
5-9	Solicitor, S.	4826.00			4826.00	4826.00
	Solicitor, O. E.	1308.61			1308.61	1308.61
5-10	Messenger, S. & W.	10026.00			10026.00	9958.50 67.50
	Messenger, O. E.	7974.00			7974.00	7964.71 9.29
5-11	Elections, S.	4320.00		10.00	4330.00	4320.00 10.00
	Elections, O. E.	4782.62			4782.62	4782.62
5-12	Registrars, S. & W.	3522.50			3522.50	3522.50
	Registrars, O. E.	1202.59			1202.59	1202.59

Accounts Arranged by Schedule—Continued

	Balances from 1908	Appropriation from Revenue	Appropriation from Loans	Department Transfers	Receipts Cash	Total Appropriated	Total Expenditures	Returned to G. T. F.	Balances to 1910
GENERAL GOVERNMENT—Continued									
5—13 Fish Warden		40.00				40.00	40.00		
5—14 Supply, S. & W.		5540.00				5540.00	5530.00	10.00	
Supply, O. E.		760.65				760.65	760.65		
Supply, Adv.		400.00			.11	400.11	340.89	59.22	
5—15 Insurance		3427.39				3427.39	2924.11	503.28	
5—16 State Supervisors		120.00				120.00	110.00	10.00	
5—17 Municipal Registers		225.00				225.00		225.00	
		95006.58		139.60	20.76	95166.94	93604.07	1562.97	
6—PROTECTION LIFE AND PROPERTY									
6—1 Police, Board, S. & W.		4447.82				4447.82	4447.82		
Police, Com. Officers		20000.12				20000.12	20000.12		
Police, Patrolmen		104000.00		2203.75		106203.75	102957.13	3246.62	
Police, Telegraph & Stable		9700.00				9700.00	9464.13	235.87	
Police, Pension		3661.28				3661.28	3660.96	.32	
Police, Special Duties		938.72				938.72	702.65	236.07	
Police, O. E.		5000.00				5000.00	4977.10	22.90	
Pound Keeper		5.00				5.00	5.00		
6—3 Rifle Range, W.		626.00				626.00	626.00		
Rifle Range, O. E.		174.00				174.00	172.56	1.44	

6-4	Fire, S. & W.	126375.00		126375.00	125149.17	1225.83
	Fire, O. E.	25000.00		25000.00	24600.28	399.72
6-5	Building, S.	4163.50		4163.50	4163.50	
	Building, W.	7000.00	293.68	7293.68	6725.78	567.90
	Building, O. E.	8272.42	497.97	8770.39	8770.39	
	Building, Janitor	2091.50		2091.50	2091.50	
6-6	Wires, S. & W.	2226.00		2226.00	2226.00	
	Wires, O. E.	300.00		300.00	297.60	2.40
6-8	Fire, Underground Wires	213.80		213.80	163.98	49.82
6-9	New Fire House	7005.73		7955.73	7764.11	191.62
6-10	Painting City Hall	662.83		662.83	662.68	.15
6-11	Shower Bath, Hose 7	63.77		63.77	63.51	.26
6-12	Weigher, S. & W.	800.00		800.00	800.00	
	Weigher, O. E.	10.00		10.00	6.68	3.32
6-13	Scaler, S. & W.	1700.00		1700.00	1698.50	1.50
	Scaler, O. E.	500.00	2.61	502.61	499.42	3.19
6-14	Building Rep. & Insp.					
6-15	Fire, New App. & Fur.	12000.00	150.00	12150.00	12144.94	5.06
6-16	New Heater, Law. St. H'se	17000.00		17000.00	3735.68	1000.00
6-17	New Fire Alarm & Gongs	150.00		150.00	150.00	
		800.00		800.00	781.40	18.60
		7946.13	3148.01	368985.50	349508.59	7020.97
						12455.94

7—HEALTH AND SANITATION

7-1	Health Office, S. & W.	9959.75		9959.75	9959.75	
	Health Office, O. E.	3820.17		3820.17	3820.17	
7-2	Health Yard, S. & W.	34228.34		34228.34	34228.34	*
	Health Yard, O. E.	8500.00	427.52	8927.52	8338.07	589.45

Accounts Arranged by Schedule—Continued

	Balances from 1908	Appropriation from Revenue	Appropriation from Loans	Department Transfers	Receipts Cash	Total Appropriated	Total Expenditures	* Returned to G.T.F.	Balances to 1910
HEALTH AND SANITATION—Continued									
7-3 Insp. Animals, S.		500.00				500.00	500.00		
Insp. Animals, O. E.		10.00				10.00	10.00		
7-4 Insp. Milk & Vinegar, S. & W.		2207.87				2207.87	2207.87		
Insp. Milk & Vinegar, O.E.		229.14				229.14	229.14		
7-5 Sewer Maintenance, S.&W.		12000.00		2933.18	7.68	14940.86	14517.80	423.06	
Sewer Maintenance, O. E.		3000.00		7620.64		10620.64	8424.02	2196.62	
7-6 Sewer Construction			50000.00	1036.10	140.92	51177.02	50277.08	899.94	
7-7 Wigginvillle Sewer	2427.34				26.75	2454.09	1631.05		823.04
7-8 Oakland Sewer			6000.00	93.97	30.75	6124.72	5761.49	363.23	
	2427.34	74455.27	56000.00	12111.41	206.10	145200.12	139904.78	4472.30	823.04

8—HIGHWAYS AND BRIDGES

8-1 Engineering		7000.00		7049.21		14049.21	13701.66	347.55	
8-2 Street Supt., S.		4000.00			45.95	4045.95	4000.18	45.77	
Street Supt., W.		108751.35		1511.73	195.86	110458.94	110458.94		
Street Supt., O. E.		38500.00		15027.20		53527.20	49695.83	3831.37	
8-3 Lighting		98000.00				98000.00	97642.75	357.25	
8-4 Street Watering, S. & W...		4200.00			.40	4200.00	4196.54	3.86	
Street Watering, O. E.		13212.13				13212.13	13212.13		
8-5 New Sidewalks		5770.81				5770.81	5770.81		

8-6	Grade Crossings	651.27			651.27	372.60	278.67
8-7	Care of Trees		1000.00		1000.00	954.00	46.00
8-8	Moths		5700.00	28.97	5728.97	5728.97	
	Moths in Flight		500.00		500.00	500.00	
8-9	Moody St. Bridge	924.35		4.50	928.85	911.27	17.58
8-10	Macadam. Foster & others	3519.26			3519.26	1384.76	2134.50
8-11	State Highway Tax		132.65		132.65	132.65	
8-12	Merr'k and Middsx. Sts.....			24.32	64024.32	55374.69	6000.00
8-13	Boulevard		6500.00		6500.00	6500.00	
8-14	Cabot St. Bridge		2900.00		2900.00	2531.13	368.87
		5994.88	286766.94	23617.11	389149.96	373068.91	13431.42
				271.03			2649.63

9—CHARITIES AND CORRECTIONS

9-1	Hospital and O. D. Relief..		76011.81	262.20	130.94	76404.95	
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10—EDUCATION

10-1	Schools, Supt., S. & W....		8180.07		8180.07	8180.07	
	School Teachers, Day		256000.00		256000.00	255160.44	839.56
	School Teachers, Night ..		20918.75		20918.75	20918.75	
	School Janitors		43929.16		43929.16	43929.16	
	School Fuel, etc.		25500.00		25500.00	24427.55	1072.45
	School Books, etc.		26163.54		26163.54	26163.54	
10-2	School Houses						
	Carpenter, W.		11500.00	276.81	11776.81	10452.30	1324.51
	Carpenter, O. E.		10609.27	472.11	11081.38	11081.38	
10-3	Highland School	30752.57			43252.57	41073.70	2178.87
10-4	High Sch. Annex Boilers	350.00			350.00	350.00	

Accounts Arranged by Schedule—Continued

	Balances from 1908	Appropriation from Revenue	Appropriation from Loans	Department Transfers	Receipts Cash	Total Appropriated	Total Expenditures	Returned to G. T. F.	Balances to 1910
EDUCATION—Continued									
10-5			500.00			500.00	498.94	1.06	
10-6		1000.00				1000.00	896.47		103.53
10-7		8000.00				8000.00	8000.00		
10-8	1018.90					1018.90	1018.85	.05	
10-9	747.08					747.08	747.08		
10-10		70.00				70.00	70.00		
	32868.55	412370.79	12500.00	748.92		458488.26	452968.23	3237.63	2282.40
11—LIBRARIES AND READING ROOMS									
11-1	Library	14000.00				14000.00	14000.00		
12—RECREATION									
12-1	Park, S. & W. Park, O. E.	11000.00 5045.78			2.77	11002.77	10002.72	1000.05	
12-2	New Ball Grounds					5045.78	5045.78		
12-3	Band Concerts	894.26				1000.00	1000.00		
12-4	Memorial Day, S. W. V.	300.00				894.26	894.26		
12-5	Memorial Day, G. A. R.	1000.00				300.00	298.95	1.05	
12-6	Play Grounds	1500.00				1000.00	1000.00		
						1500.00	1500.00		

12-7	Anne St. Imp.	1500.00		1500.00	1499.97	.03	
12-8	Little Canada Park		2000.00	2001.10	1501.10		500.00
		1000.00	21240.04	2000.00	22742.78	1001.13	500.00

13—SOLDIERS BENEFITS

13-1	State Aid Office	2100.00		2100.00	1870.93	229.07	
13-2	State Aid	19400.00		19429.00	18050.50	1378.50	
13-3	Military Aid	3042.00		3052.00	3052.00		
13-4	Soldiers Relief	15471.30		15479.30	15479.30		
		40013.30		40060.30	38452.73	1607.57	

14—UNCLASSIFIED

14-1	Building Fund	49708.00		49708.00	49708.00		
14-2	Huntington Hall Cont.	267.65		267.65	267.65		
14-3	Carney Medals	200.00		200.00	200.00		
14-4	Cowley Case	500.00		500.00	481.66	18.34	
14-5	Taylor Tablet	100.00		100.00	75.00	25.00	
14-6	Claims & Executions	2042.37		2042.37	2042.37		
14-7	Target Practice	234.00		234.00	234.00		
		50175.65	2876.37	53052.02	2833.03	43.34	50175.65

15—INTEREST

15-1	Interest	156500.00		156500.00	142657.04	13842.96	
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Accounts Arranged by Schedule—Continued

	Balances from 1908	Appropriation from Revenue	Appropriation from Loans	Department Transfers	Receipts Cash	Total Appropriated	Total Expenditures	Returned to G. T. F.	Balances to 1910
16—CEMETERIES									
16—1 Cemeteries		7522.89				7522.89	7522.89		
17—MUNICIPAL INDUSTRIES									
17—1 Water Works				1.62	212716.53	212718.15	211711.51		1006.64
18—MUNICIPAL INDEBTEDNESS									
18—1 City Debt		283734.20		15200.00		298934.20	298934.20		
18—2 Temporary Loans	800000.00		1200000.00			2000000.00	1300000.00		700000.00
	<u>800000.00</u>	<u>283734.20</u>	<u>1200000.00</u>	<u>15200.00</u>		<u>2298934.20</u>	<u>1598934.20</u>		<u>700000.00</u>
19—SINKING FUNDS									
19—1 Sinking Funds		30500.00				30500.00	30500.00		

RECAPITULATION OF SCHEDULES

	Balances from 1918	Appropriation from Revenue	Appropriation from Loans	Department Transfers	Receipts Cash	Total Appropriated	Total Expenditures	Returned to G. T. F.	Balances to 1919
1 Taxes		193551.40				193551.48	193468.08	83.40	
2 Licenses		45000.00				45000.00	43138.00	1862.00	
3 Special Assessments		4.00				4.00	4.00		
4 Tax Abatements		166.96				166.96	166.96		
5 General Government		95006.58		139.60	20.76	95166.94	93604.07	1562.97	
6 Protection, Life and Property	7946.13	328891.36	29000.00	3148.01		368985.50	349508.59	7020.97	12455.94
7 Health and Sanitation	2427.34	74455.27	56000.00	12111.41	206.10	145200.12	139904.78	4472.30	823.04
8 Highways and Bridges	5094.88	286766.94	73400.00	236617.11	271.03	389149.96	373068.91	13431.42	2649.63
9 Charities and Corrections		76011.81		262.20	130.94	76404.95	76404.95		
10 Education	32868.55	412370.79	12500.00	748.92		458488.26	452968.23	3237.63	2282.40
11 Libraries and Reading Rooms		14000.00				14000.00	14000.00		
12 Recreation	1000.00	21240.04	2000.00		3.87	24243.91	22742.78	1001.13	500.00
13 Soldiers Benefits		40013.30			47.00	40060.30	38452.73	1607.57	
14 Unclassified	50175.65	2876.37				53052.02	2833.03	43.34	50175.65
15 Interest		156500.00				156500.00	142657.04	13842.96	
16 Cemeteries		7522.89				7522.89	7522.89		
17 Municipal Industries					1.62	212718.15	211711.51		1006.64
18 Municipal Indebtedness	800000.00	283734.20	1200000.00	15200.00		2298934.20	1598934.20		700000.00
19 Sinking Funds		30500.00				30500.00	30500.00		
Total	899512.55	2068611.99	1372900.00	55228.87	213396.23	4609649.64	3791599.75	48165.59	766893.30

GENERAL TREASURY FUND REVENUE

Department Revenue

Building Department	\$2,447.23
Charity Hospital	1,736.45
Charity Outdoor Relief	3,046.43
Cemeteries	8,615.90
City Clerk	2,136.75
Sealer	472.20
Treasurer	991.18
Weigher	73.59
Corporation Tax	105,950.64
Excise Tax	9,112.99
Fire Department	2.00
Health	6,763.73
Incidentals	3,306.80
Inspector of Milk	107.00
Interest	30,781.98
Liquor Licenses	172,554.00
Military Aid	19,348.00
Moths	3,584.56
National Bank Tax	3,744.34
Parks	1,116.75
Police	12,795.58
Schools	7,228.00
Sewer Construction	11,292.09
Streets	3,679.12
Street Railway Tax	10,824.41
Street Watering	18,846.26
Miscellaneous	823.17

\$441,390.15

From Taxes

Taxes 1902	\$35.32
" 1903	213.06
" 1904	10.00
" 1905	86.66
" 1906	1,089.56
" 1907	180,972.73
" 1908	222,773.69
" 1909	1,245,287.32

\$1,650,468.34

GENERAL TREASURY FUND REVENUE—Continued

From Loans

Paving Streets	\$64,000.00	
Sewer Construction	56,000.00	
Boulevard	6,500.00	
Public Buildings	12,000.00	
Park Improvements	2,000.00	
Fire Department	17,000.00	
New Highland School	12,500.00	
Cabot Street Bridge	2,900.00	
		<hr/>
		\$172,900.00
From Water Rates		212,716.53
From Department Cash Receipts.....		679.70
From Temporary Loans		1,200,000.00
		<hr/>
		3,678,154.72
Transfers:		55,228.87
Overdraft from Water Dept.		7,637.49
		<hr/>
		3,741,021.08
Cash Balance, Jan. 1, 1909		248,690.70
		<hr/>
		\$73,989,711.78

GENERAL TREASURY FUND PAYMENTS

Department Accounts

Department Accounts	\$2,169,736.76	
Miscellaneous	366,642.32	
		<hr/>
		\$2,536,379.08

Temporary Accounts

Temporary Loans	\$1,200,000.00	
Transfers	55,228.87	
		<hr/>
		\$1,255,228.87

Cash Balance, December 31, 1909

For General Purposes \$128,210.53

For Unexpended Appropriations:—

New Fire House	191.62
New Fire Apparatus	12,264.32
Wigginville Sewer	823.04
Merrimack and Bridge Streets	2,649.63
New Highland School	2,178.87
Greenhalge School	103.53
Little Canada Park	500.00
Building Fund	49,708.00
Huntington Hall Contingent Fund	267.65
Carney Medal Fund	200.00
Water Department	1,006.64

\$198,103.83

3,989,711.78

SCHEDULE M

APPROPRIATIONS AND EXPENDITURES FROM THE GENERAL TREASURY FUND BY DEPARTMENTS

Classified and Arranged according to Schedule G

TAXES—1

County Tax; City Tax; State Tax; Corporation Tax;
National Bank Tax

COUNTY TAX

Appropriation	\$84,553.16	
		<u>\$84,553.16</u>
Expended		
County of Middlesex, Tax of 1909	84,553.16	
		<u>84,553.16</u>

CITY TAX

Taxes

ACTS OF 1885, CHAPTER 312

“An Act to Limit Municipal Debt of and the Rate of Taxation in Cities.”

“Be it enacted, etc., as follows:

“Section 1. The taxes assessed on property in any city, except the City of Boston, exclusive of State Tax, County Tax and sums required by law to be raised on account of the City Debt, shall not exceed in any year twelve dollars on every one thousand dollars of the average of the assessors' valuation of the taxable property therein for the preceding three years, the valuation being first reduced by the amounts of all abatements allowed thereon, previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void.

“Sect. 2. The limit of indebtedness of cities shall hereafter be two and one-half per cent. on the average valuation prescribed in Section one of this act.”

The amount of taxes assessed on the Polls and on the Real and Personal Estates within the City of Lowell for the year 1909 was as follows:

Valuation of and Tax on Real and Personal Property

	Valuation	Rate	Tax
Real Estate	\$61,296,360.00	\$19.60	\$1,201,408.66
Personal Estate	17,880,477.18	19.60	350,457.35
Total City Valuation. \$79,176,837.18			\$1,551,866.01
Number of Polls, 26,460 at \$2 each			52,920.00
Tax assessed on shares of stock in the Nation Banks of Lowell, held by non-residents, and which are not included in the City valuation, 519,122.82 at \$19.60 per 1,000.....			10,174.81
Grand total for year 1909.....			<u>\$1,614,960.82</u>

Appropriated and assessed in year 1909:

City Appropriations	\$1,402,300.00
State Tax	98,685.00
County Tax	84,553.16
State Highway Tax	132.65
Lowell Textile School	8,000.00
Overlayings	4,859.11
Supplementary Tax	6,256.09
Non-resident Bank Shares	10,174.81
Grand Total of Tax Levy for 1909	<u>1,614,960.82</u>

STATE TAX

Appropriation	98,685.00
	<u>98,685.00</u>

Expended

To Commonwealth of Massachusetts	98,685.00
	<u>98,685.00</u>

CORPORATION TAX

Appropriation	\$138.51	
	<u> </u>	\$138.51

Expended

To Commonwealth of Massachusetts	138.51	
	<u> </u>	\$138.51

NATIONAL BANK TAX

Appropriation	10,174.81	
	<u> </u>	10,174.81

Expended

To Commonwealth of Massachusetts	10,091.41	
Returned to General Treasury Fund	83.40	
	<u> </u>	10,174.81

LICENSES—2**LIQUOR LICENSES**

Appropriation	\$45,000.00	
	<u> </u>	\$45,000.00

Expended

To Commonwealth of Massachusetts	\$43,138.00	
Returned to General Treasury Fund	1,862.00	
	<u> </u>	\$45,000.00

SPECIAL ASSESSMENTS—3

MOTH ABATEMENTS

Appropriation	\$4.00	
		\$4.00
Expended		
Heirs C. F. Coburn	\$3.00	
Alletha U. Joyce	1.00	
		\$4.00

TAX ABATEMENTS—4

TAX ABATEMENTS

Appropriation	\$166.96	
		\$166.96
Expended		
B. H. Byam	\$4.08	
James C. Donovan .....	.40	
Fleischmann & Co.	11.76	
C. H. McIntire	94.08	
E. D. Page	44.88	
Samuel Patenaude	5.88	
Grace Scribner	5.88	
		\$166.96

GENERAL GOVERNMENT—5

Incidentals; Clerk Committees, Salaries; Clerk Committees, Office Expenses; Clerk Council; Mayor, Salaries; Mayor, Office Expenses; Auditor, Salaries; Auditor, Office Expenses; Treasurer, Salaries; Treasurer, Office Expenses; Assessors, Salaries; Assessors, Office Expenses; Assessors, Tax Book; City Clerk, Salaries; City Clerk, Office Expenses; Solicitor, Salaries; Solicitor, Office Expenses; Messenger, Salaries and Wages; Messenger, Office Expenses; Elections, Salaries; Elections, Office Expenses; Registrars, Salaries and Wages; Registrars, Office Expenses; Fish Warden; Supply, Salaries and Wages; Supply, Office Expenses; Supply, Advertising; Insurance; State Supervisors; Municipal Registers.

INCIDENTALS

Appropriation	\$2,418.39	
		\$2,418.39

Expended

For Stationery, Printing, etc.:

Baker Printing Co.	\$3.50	
Buckland Printing Co.	6.00	
A. Bushnell Co.	13.04	
Courier-Citizen Co.	49.20	
Dumas & Co.	246.95	
Lowell Sun	5.00	
Lowell T. & O. Supply Co.	70.00	
John J. Mahoney	119.25	
M. L. McAdams	2.00	
Middlesex County	12.25	
R. C. Paradis	2.40	
J. E. Pattee	2.00	
J. F. Power	2.00	
G. C. Prince & Son	41.95	
C. S. Proctor	3.75	
Smith Typewriter Inspection Co.	4.50	
Tobin's Printery	1.50	
Union Printing Co.	385.61	

\$970.90

Incidentals—Continued

For Bell ringing, July 4th:

Patrick Clark	2.50
John H. Condon	2.50
Winfield Cross	2.50
Henry M. Driscoll	2.50
J. G. Gordon	2.50
William Hunt	2.50
J. J. Johnson	10.00
M. Leonard	2.50
J. H. Nolan	2.50
Joseph Provost	2.50

 \$32.50

For Entertainment:

Carney & Co.	\$24.10
Lowell Inn	17.00
Richardson Hotel	22.00
Waverly Hotel	18.80

 \$81.90

For Express, Transportation, etc.:

Joseph Albert	\$7.50
American Express Co.	8.65
Lowell Coach Co.	55.35
Lowell Taxicab Co.	2.00
M. H. McDonough	4.00
E. H. Mercier	10.00
H. W. O'Brien	39.24
J. H. Sparks	45.55

 \$172.29

For Clerk hire:

Sundry persons	\$135.08
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 \$135.08

For Sundries:

Adams & Co.	\$147.96
R. S. Emerson	1.00
A. Lawrence	50.00
Lowell Mechanic Phalanx	125.00
Middlesex Safe Deposit & Trust Co.	90.00
E. S. Morse & Co.	400.00
N. E. T. & T. Co.	23.24
Oblate Fathers	18.00
Annie M. O'Brien	25.00

Incidentals—Continued

For Sundries :

George S. Palmer	5.50
Postal Telegraph Co.	2.15
Robertson Co.	7.50
J. F. Savage	9.50
H. L. P. Turcotte	33.50
Western Union Telegraph Co. ....	.37
A. M. Wood	12.00
C. F. Young	75.00

 \$1,025.72

 \$2,418.39
CLERK OF COMMITTEES**Salary**

Appropriation	\$1,400.00
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 \$1,400.00
Expended

To Frank M. Dowling, Clerk	1,400.00
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 \$1,400.00
Other Expenses

Appropriation	150.00
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 150.00
Expended

For Stationery, Printing, etc. :

Courier-Citizen Co.	16.00
Dumas & Co.	19.15
Charles E. Galley	10.20
G. C. Prince & Son	6.00

 51.35

Clerk of Committees—Continued

For Sundries:

Lowell Coach Co.	1.05
A. M. O'Brien	34.00
H. L. P. Turcotte	51.50
A. M. Wood	12.00

 98.55

 149.90

Returned to General Treasury Fund

.10

 \$150.00

CLERK OF COMMON COUNCIL

Appropriation	\$300.00
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 300.00

Expended

To Frank M. Dowling	300.00
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 300.00

MAYOR'S DEPARTMENT

Salaries

Appropriation	4,200.00
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 4,200.00

Expended:

George H. Brown, Mayor	3,000.00
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 3,000.00

Mayor's Department—Continued**For Clerks:**

E. V. Brown	317.21
A. M. Caddell	123.54
L. S. Cutter	6.00
M. M. Estabrook	118.76
W. C. MacBrayne	614.65
E. J. Richardson	13.14
A. M. Wood	4.00

 1,197.30

 4,197.30

Returned to General Treasury Fund

2.70

 4,200.00
Other Expenses

Appropriation	162.15
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 162.15
Expended**For Stationery, Printing, etc.:**

Baker Printing Co.	13.50
Courier-Citizen Co.	4.15
Dumas & Co.	6.25
H. C. Kittredge	3.80
Lowell Sun	3.00
M. L. McAdams	2.00
G. C. Prince & Son	55.90
A. A. Smith .....	.75
Smith Typewriter Co.	11.50
F. A. M. Tobin's Printery	8.50

 109.35
For Telephone, Transportation, etc.:

American Express Co. ....	.20
Lowell Coach Co.	2.50
N. E. T. & T. Co.	12.25
Postal Telegraph Co. ....	.84
J. H. Sparks	7.00

 22.79

For Sundries:

Cheney & Thomson Co.	1.50
T. J. Grady	2.00
A. K. Guyton	2.00
E. J. Richardson	23.01
Thompson Hardware Co.	1.50

 30.01

 162.15

AUDITOR'S DEPARTMENT

Salaries

Appropriation	3,890.00
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 3,890.00

Expended

Charles D. Paige, Auditor	1,800.00
James T. Dunfey, Clerk	1,095.50
Clinton P. Tuttle	994.50

 3,890.00

Other Expenses

Appropriation	1,726.89
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 1,726.89

For Books, Stationery, etc.:

G. C. Prince & Son	94.63
Osmond Long	17.00
Dumas & Co.	124.75
Miller & Son	67.50
Buckland Printing Co.	198.75
Bromburg & Co.	15.80
Sampson & Murdock	3.00

 521.43

Auditor's Department—Continued

For Office Supplies, Stamps, Repairs, etc.:

C. E. Galley	50.25
Lull & Hartford	17.25
Kelty & Co.	10.50
A. L. Kittredge	12.50
C. D. Paige	41.30
H. C. Derby	13.35
G. C. Prince & Son	86.52

231.67

For Printing, Binding, Sundries, etc.:

Lowell Sun	3.00
N. E. T. & T. Co.	24.77
Butterfield Printing Co.	286.26
Gookin & Co.	27.50
Davis & Co.	20.00
Buckland Printing Co.	421.00
Adams & Co.	11.01
Carney & Son	36.25
Dumas & Co.	144.00

973.79

\$1,726.89**TREASURER'S DEPARTMENT****Salaries**

Appropriation	\$8,582.00
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\$8,582.00**Expended**

Andrew G. Stiles, City Treasurer	2,700.00
Joseph Farrell, Teller	1,500.00
Charles C. Wilson, Paymaster	1,095.50
J. H. Lavallee, Clerk	782.50
Minnie Freeman, Clerk	626.00
Kittie Miskella, Clerk	626.00
Maud Macpherson, Clerk	626.00
Jean McIntyre, Clerk	626.00

8,582.00

Treasurer's Department—Continued

Other Expenses

Appropriation	2,744.30	
		<u>2,744.30</u>

Expended

For Stationery, Printing, etc.:		
Banker & Tradesman	5.00	
Buckland Printing Co	232.50	
J. E. Buick	1.80	
Boston News Bureau	12.00	
Courier-Citizen Co.	194.00	
Dumas & Co.	194.95	
Charles E. Galley	16.50	
H. C. Kittredge	3.75	
T. H. Lawler	7.00	
L'Etoile	188.00	
Lowell Sun	187.00	
G. E. Prince & Son	77.26	
Sampson & Murdock Co.	6.00	
A. G. Thompson	531.00	
		<u>\$1,656.76</u>
For Labor:		
Sundry Persons	509.06	
		<u>509.06</u>
For Sundries:		
C. B. Coburn Co.	1.80	
Lull & Hartford	2.75	
E. S. Morse	150.00	
N. E. T. & T. Co.	17.82	
A. G. Stiles	301.11	
E. M. Tucke	105.00	
		<u>578.48</u>
		<u>\$2,744.30</u>

ASSESSORS' DEPARTMENT

Salaries

Appropriation	12,003.00	
		<u>12,003.00</u>

Assessors' Department—Continued

Expended

For Principal Assessors :

Abel Wheeler	2,250.00
C. Arthur Abbott	2,250.00
Albert J. Blazon	2,250.00

6,750.00

For Clerks :

William Reardon	1,600.00
Marietta L. McGrath	800.00

2,400.00

For Assistant Assessors :

Sundry Persons	829.50
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829.50

For Temporary Clerks and Interpreters :

Sundry Persons	2,023.50
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2,023.50

12,003.00

Other Expenses

Appropriation	884.65
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884.65

Expended

For Stationery, Printing, etc. :

Buckland Printing Co.	2.25
Butterfield Printing Co.	40.00
Carter's Ink Co.	1.13
Courier-Citizen Co.	6.00
Dumas & Co.	36.70
Fisher & Fowler .....	.42
H. C. Kittredge	5.75
Lambert Printing Co.	536.25
Munson Supply Co.	3.50
G. C. Prince & Son	37.85
Review & Record Co.	5.00
Sampson & Murdock Co.	12.00
Horace J. Stevens	75.00
Union Printing Co.	3.00
M. G. Wight & Co.	67.50

832.35

Assessors' Department—Continued

For Sundries:

American Express Co. ....	.75	
Arthur Bartlett	3.45	
J. J. Flynn	5.00	
Manchester & Concord Express Co. ....	.35	
William Reardon	5.25	
J. H. Sparks	37.50	
		<u>52.30</u>
		<u>884.65</u>

TAX BOOK

Appropriation	1,637.75	
		<u>1,637.75</u>

Expended

For Clerk Hire:

Sundry Persons	278.75	
		<u>278.75</u>

For Printing:

Butterfield Printing Co.	1,350.00	
Courier-Citizen Co.	9.00	
		<u>1,359.00</u>
		<u>1,637.75</u>

CITY CLERK'S DEPARTMENT

Salaries

Appropriation	5,282.34	
		<u>5,282.34</u>

City Clerk's Department—Continued

Expended

Girard P. Dadman, City Clerk	1,800.00
William P. McCarthy, Assistant	1,500.00
Belle C. Hill, Clerk	730.34
Georgia T. Story, Clerk	136.00
Annie H. Bedlow, Clerk	626.00

 4,792.34

Returned to General Treasury Fund

 490.00

 5,282.34

Other Expenses

Appropriation	1,300.00
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 1,300.00

Expended

For Reporting Births:

 To Sundry Persons, Physicians, Nurses,
 Enumerators

 793.45

 793.45

For Stationery, Printing, etc.:

Baker Printing Co.	25.80
Buckland Printing Co.	18.50
Courier-Citizen Co.	6.00
G. P. Dadman	50.65
Dumas & Co.	19.50
Charles C. Hartwell	7.00
Lambert Printing Co.	42.50
Lowell Sun	6.00
H. M. Meek Publishing Co.	12.00
G. C. Prince & Son	16.25
Riley & Sanborn	3.75
Sampson & Murdock Co.	6.00
Smith Premier Typewriter Co.	30.00
F. A. M. Tobin's Printery	7.40
Union Printing Co.	51.75

 303.10

City Clerk's Department—Continued

For Sundries:—

American Express Co.	4.60
Joseph J. Flynn	4.00
Lowell Coach Co.	10.00
Manchester & Concord Express Co. ....	.75
N. E. T. & T. Co.	2.32
J. H. Sparks	6.00

 27.67

 \$1,124.22

Returned to General Treasury Fund

175.78

 \$1,300.00

LAW DEPARTMENT

Appropriation 4,826.00

 \$4,826.00

Expended

James Gilbert Hill, City Solicitor	500.00
William W. Duncan, City Solicitor	2,500.00
M. E. McDonald, Inspector of Claims	1,200.00
Frances E. Andrews, Clerk	626.00

 \$4,826.00

Other Expenses

Appropriation 1,308.61

 \$1,308.61

Expended

For Stationery, Printing, etc.:—

Baker Printing Co.	\$18.20
Banker & Tradesman	5.00
Butterfield Printing Co.	14.00
Carter's Ink Co. ....	.38
Com. of Mass.	2.00

Law Department—Continued

For Stationery, Printing, etc.:—Continued

C. F. Hatch Co.	1.50
Lawyers Co-op. Pub. Co.	28.00
Little, Brown & Co.	9.20
Middlesex County	15.20
G. C. Prince & Son.	25.65
Riley & Sanborn	3.00
Sampson & Murdock Co.	3.00
Frank Shepard Co.	3.00
Tobin's Printery	1.75
West Publishing Co.	50.00

 \$179.88

For Telephone, Transportation, etc.

American Express Co. ....	.80
F. N. Burnham	1.50
Manchester & Concord Express Co. ....	.15
N. E. T. & T. Co.	12.81
N. Y. & B. Despatch Express Co. ....	.25

 \$15.51

For Sundries:—

C. B. Coburn Co. ....	.60
W. W. Duncan	166.05
C. F. Hatch	1.25
J. Gilbert Hill	197.05
John F. Kelley	1.74
Frank J. Ladd	100.00
Middlesex County ....	.50
Thomas G. Robbins	14.95
L. E. Rollins	165.33
Thomas B. Smith	425.00
George F. Stiles	40.75

 \$1,113.22

 \$1,308.61
MESSENGER'S DEPARTMENT**Salaries and Wages**

Appropriation	\$10,026.00
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 10,026.00

Messenger's Department—Continued

Expended

Joseph E. Pattee, Messenger	1,200.00	
Sundry persons, labor	8,758.50	
		<u>9,958.50</u>
Returned to General Treasury Fund		67.50
		<u>10,026.00</u>

Other Expenses

Appropriation	7,974.00	
		<u>7,974.00</u>

Expended

For Repairs on Furniture and Fixtures:—

Adams & Co.	187.60
H. R. Barker Mfg. Co.	51.20
Carroll Bros.	1.00
Derby & Morse	68.94
J. B. Goodwin	10.10
M. F. Gookin Co.	20.91
A. Lawrence	35.00
Geo. E. Maker	3.50
A. G. Pollard Co.	27.00
Robertson Co.	75.50
Tucke & Parker Co.	4.25

\$485.00

For Hardware, etc.:—

Adams Hardware & Paint Co.	43.06
J. C. Bennett	22.07
Cheney & Thomson Co.	81.20
C. B. Coburn Co.	43.44
H. C. Girard Co.	29.53
N. D. Lafleur	4.00
Smith & Lawrence	20.25
Thompson Hardware Co.	2.85

\$246.40

Messenger's Department—Continued

For Entertainment and Decorations:—

J. Albert Evans	26.43
Morse & Beals	35.00
C. F. Young & Co.	61.00
Whittet & Co.	29.00

151.43

For Express, Transportation, etc.:—

American Express Co. ....	.80
Conway Transfer Co. ....	.25
Lowell Coach Co.	16.00
Manchester & Concord Express Co. ....	.85
J. H. Sparks	56.50

74.40

For Stationery, Printing, etc.:—

Courier-Citizen Co.	3.00
Craftsman Press	20.50
C. E. Galley	1.50
H. C. Kittredge .....	.25
T. F. McCarthy	50.00
R. C. Paradis	1.15
G. C. Prince & Son	138.64
Sampson & Murdock Co.	12.00
Union Printing Co.	2.75

229.79

For Lighting City Hall:—

Lowell Electric Corp.	1,131.56
Lowell Gas Light Co.	256.60

1,388.16

For Lighting Memorial Hall:—

Lowell Electric Light Corp.	97.15
Lowell Gas Light Co.	28.97

126.12

For Fuel:—

Edward Cawley	2,990.36
E. A. Wilson & Co.	450.98

3,441.34

For Police Officer at City Hall:—

App. Police—Patrolmen	1,048.63
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\$1,048.63

Messenger's Department—Continued

For Sundries:—

App. Water Works	\$293.11
W. H. Bean	1.00
E. Bushnell	4.00
R. P. Butterick	18.36
Cancos Mfg. Co.	6.00
C. B. Coburn Co.	111.25
Cook, Taylor Co.	11.78
Cross Awning Co.	1.00
H. I. Dallman	3.60
R. A. Davis	5.00
Drew Stranahan Hussey Co.	10.50
F. J. Flemings	9.00
Frye & Crawford	2.25
D. Gage.	127.22
Gilbride Co.	7.10
H. Goldrick	12.37
G. H. Hutchins	7.00
C. F. Hatch	4.00
Howard & Co.	3.75
India Alkali Works	23.41
A. E. Johnson	2.25
A. Lawrence	25.00
James McKinley	6.00
N. E. T. & T. Co.	36.33
No Dust Mfg. Co.	3.75
Otis Elevator Co.	1.50
C. R. Preston	5.00
Smith Metal Polish Co.	10.00
Ervin E. Smith	4.00
S. J. Steinmitz	2.16
Talbot D. & C. Co.	5.75
West Disinfectant Co.	10.00

773.44

7,964.71

9.29

Returned to General Treasury Fund

\$7,974.00

ELECTIONS

Salaries and Wages

Appropriation	\$4,330.00	
		<u>4,330.00</u>

Expended

For Election Officers:		
To Sundry Persons	4,320.00	
Returned to General Treasury Fund	1,000.00	
		<u>4,330.00</u>

Other Expenses

Appropriation	4,782.62	
		<u>4,782.62</u>

Expended

For Labor:—		
To Sundry Persons	1,795.56	
		<u>1,795.56</u>

For Stationery, Printing, etc.:—

Baker Printing Co.	76.00
Butterfield Printing Co.	659.75
Buckland Printing Co.	21.50
Courier-Citizen Co.	848.70
Dumas & Co.	7.50
G. P. Dadman	27.00
L'Etoile	3.90
Osmond Long	14.00
Lowell Sun	29.40
Lowell Telegram	7.20
Merrimack Valley Labor Journal	6.00
T. F. McCarthy	1.50
G. C. Prince & Son	76.15
Chas. S. Proctor	140.87
Chas. E. Robinson	88.00
Tobin's Printery	22.00
Union Printing Co.	107.55

\$2,137.02

Elections—Continued

For Teaming:—

Berard Transfer Co.	16.00
Thomas Casey	12.00
City Transfer Co.	13.00
Conway Transfer Co.	50.00
C. H. Hanson & Co.	87.50
T. G. Little	52.25
J. H. McDonald	16.00
S. T. Moses	12.00
S. W. Parker	16.00
M. Reynolds	20.00
J. H. Sparks	15.00
Stanley Transportation Co.	87.50

417.25

For Sundries:—

Bellefontaine Bros.	24.00
J. C. Bennett	1.50
C. B. Coburn Co.	75.85
A. F. French & Co.	76.30
W. T. Griffin	44.50
N. D. Lafluer	8.10
Rowena Palmer	10.00
Percy Parker	75.00
Robertson Co.	4.50
Heirs M. T. Stevens	10.00
Taylor Roofing Co.	71.25
App. Pub. Bldgs. O. E.	31.70

432.79

\$4,782.62

REGISTRARS

Salaries and Wages

Appropriation	<u>\$3,522.50</u>
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3,522.50

Registrars—Continued

Expended

For Board of Registrars:—

John P. Farley	800.00
Girard P. Dadman	750.00
J. O. Allard	750.00
H. C. McOsker	750.00

3,050.00

For Clerk Hire:—

To Sundry Persons	472.50
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472.50

3,522.50

Other Expenses

Appropriation	1,202.59
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1,202.59

Expended

For Stationery, Printing, etc.:—

Courier-Citizen Co.	901.45
Dumas & Co.	6.25
C. I. Hood Co.	41.00
L'Etoile	5.60
Osmond Long	40.40
Lowell Sun	12.00
Lowell Telegram	4.80
T. F. McCarthy	4.25
Pairpoint Corp.	1.13
Chas. S. Proctor	65.28
Sampson & Murdock Co.	6.00
Union Printing Co.	2.00

1,090.16

For Sundries:—

Lowell Wall Paper Co.	29.48
N. Y. & B. D. Express Co. ....	.25
D. L. Page	64.70
J. H. Sparks	18.00

112.43

\$1,202.59

FISH WARDEN

Appropriation	40.00	
		<u>40.00</u>
Expended		
To George T. Spence, Fish Warden	40.00	
		<u>40.00</u>

SUPPLY DEPARTMENT**Salaries and Wages**

Appropriation	5,540.00	
		<u>5,540.00</u>
Expended		
Peter A. MacKenzie, Purchasing Agent	2,400.00	
Abram Fenton, Inspector	782.50	
Thomas J. Murphy, Inspector	782.50	
John H. Murphy, Clerk	782.50	
Eleanor M. Churchill, Clerk	782.50	
		<u>5,530.00</u>
Returned to General Treasury Fund		10.00
		<u>5,540.00</u>

Other Expenses

Appropriation	760.65	
		<u>760.65</u>
Expended		
For Stationery, Printing, etc.:—		
Baker Printing Co.	95.86	
Buckland Printing Co.	46.50	
Carter's Ink Co. ....	.38	
Davis Printing Co.	7.50	
Lowell Typewriter & O. S. Co.	2.40	

Supply Department—Continued

For Stationery, Printing, etc.:—Continued

R. C. Paradis	2.40
G. C. Prince & Son	79.55
Sampson & Murdock Co.	3.00
Union Printing Co.	7.25
M. G. Wight & Co.	43.00

287.84

For Telephone, Transportation, etc.:—

C. K. Miller	60.50
N. E. T. & T. Co.	13.41

73.91

For Carriages, Harnesses and Repairs:—

Geo. F. Allen	2.00
Charles Crevier	8.00
Thomas J. Goyette	15.00
D. W. Parker	48.00
Salois & Leith	16.75

89.75

For Shoeing and Board of Horses:—

James Blakely	25.65
Charles Crevier	3.50
C. Desmond	14.25
Geo. H. Taylor	262.40

305.80

For Sundries:—

John C. Bennett	2.50
W. A. Mack Co.25
A. G. Pollard Co.60

\$3.35

760.65

Advertising

Appropriation	400.11
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400.11

Supply Department—Continued

Advertising:—Continued

Courier Citizen Co.	105.15
L'Etoile	60.15
Lepine & Co.	39.45
Lowell Sun	112.74
Lowell Telegram	23.40

	340.89
Returned to General Treasury Fund	59.22
	<u>\$400.11</u>

INSURANCE

Appropriation	<u>\$3,427.39</u>
	<u>3,427.39</u>

Expended

F. M. Brogan	156.75
W. D. Brown	73.78
A. R. Campbell	83.00
F. C. Church	217.28
G. B. Coburn	73.78
Collins & Hogan	260.00
F. L. Dickey	109.40
J. F. Donohoe	223.78
Russell Fox	73.78
Geo. D. Kimball	73.75
Thos C. Lee & Co.	586.78
E. E. Mansur	73.78
Henry Miller & Son	73.78
F. B. Murphy	107.56
N. G. Norcross	173.78
Joseph Peabody, Agent	204.94
Traders & Mechanics Insurance Co	55.76
E. M. Tucke	228.65
G. R. Whidden	73.78

	2,924.11
Returned to General Treasury Fund	503.28
	<u>\$3,427.39</u>

STATE SUPERVISORS

Appropriation	\$120.00	
	<u> </u>	
		120.00
		<u> </u>

Expended

To Sundry Persons	110.00	
Returned to General Treasury Fund	10.00	
	<u> </u>	
		\$120.00
		<u> </u>

MUNICIPAL REGISTERS

Appropriation	225.00	
	<u> </u>	
		225.00
		<u> </u>
Returned to General Treasury Fund	225.00	
	<u> </u>	
		225.00
		<u> </u>

PROTECTION OF LIFE AND PROPERTY—6

Police, Board, S. & W.; Police, Com. Officers; Police, Patrolmen; Police, Telegraph & Stable; Police, Pension; Police, Special Duties; Police, O. E.; Pound Keeper; Rifle Range, W.; Rifle Range, O. E.; Fire, S. & W.; Fire, O. E.; Building, S.; Building, W.; Building, O. E.; Building, Janitors; Wires, S. & W.; Wires, O. E.; Fire, Underground Wires; New Fire House; Painting City Hall; Shower Bath, Hose 7; Weigher, S. & W.; Weigher, O. E.; Sealer, S. & W.; Sealer, O. E.; Building Rep. & Insp.; Fire, New App. & Fur.; New Heater, Law. St. House; New Fire Alarm & Gongs.

POLICE DEPARTMENT

Police Board

Salaries and Wages

Appropriation	4,447.82	
		4,447.82

Expended

Board of Police:—

Frank K. Stearns	913.48	
Charles H. Hanson	761.18	
Thomas P. Boulger	761.18	
Thomas Duckworth	164.00	
John J. Burns	205.50	
D. A. Parthenais	142.48	
		2,947.82

For Secretary:—

John J. Flaherty, Jr.	1,500.00	
		1,500.00
		4,447.82

Police Department—Continued**Commissioned Officers****Salaries and Wages**

Appropriation	20,000.12
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	<u>20,000.12</u>
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Expended

For Superintendent:—

William B. Moffatt	798.16
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James Brosnan	312.07
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Redmond Welch	431.98
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	<u>1,542.21</u>
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For Deputy Superintendent:—

Redmond Welch	1,178.43
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Hugh Downey	1,500.00
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	<u>2,678.43</u>
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For Officers:—

Sundry Persons	15,779.48
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	<u>15,779.48</u>
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	<u>20,000.12</u>
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Patrolmen, Wages

Appropriation	106,203.75
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	<u>106,203.75</u>
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Expended

For Patrolmen:—

To Sundry Persons	102,957.13
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Returned to General Treasury Fund	3,246.62
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	<u>106,203.75</u>
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Police, Telegraph and Stable Wages

Appropriation	9,700.00
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	<u>9,700.00</u>
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Police Department—Continued

For Wages:—

To Sundry Persons	9,464.13	
Returned to General Treasury Fund	235.87	
	<u> </u>	9,700.00

Pensions

Appropriation	3,661.28	
	<u> </u>	3,661.28

Expended

To Sundry Persons Pensions	3,660.96	
Returned to General Treasury Fund .....	.32	
	<u> </u>	3,661.28

Special Duties, Elections and Celebrations

Appropriation	938.72	
	<u> </u>	938.72

Expended

To Sundry Persons	702.65	
Returned to General Treasury Fund	236.07	
	<u> </u>	938.72

Other Expenses

Appropriation	5,000 00	
	<u> </u>	5,000.00

Expended

For Stationery, Printing, etc.:—

Auto List Publishing	10.00
Baker Printing Co.	121.50
Buckland Printing Co.	30.25
Carter's Ink Co.	2.20
Coutier-Citizen Co.	71.00

Police Department—Continued

For Stationery, Printing, etc.:—Continued

Dumas & Co.	17.00
H. C. Kittredge .....	.20
T. H. Lawler	1.95
Lawler Printing Co.	9.75
L'Etoile	11.00
Library Bureau	2.00
Osmond Long	5.00
Lowell Sun	16.35
G. C. Prince & Son	351.13
Sampson & Murdock Co.	12.00
Smith Typewriter Inspection Co.	8.50
Union Printing Co.	61.88
M. G. Wight & Co.	23.90

755.61

For Hardware, etc.:—

Adams H. & P. Co.	2.00
Bartlett & Dow	28.25
Cary Spring Works .....	.25
C. B. Coburn Co.	21.09
W. A. Mack Co.	8.15
Pevey Bros.	11.37
Rice & Co.	7.60
E. E. Smith	1.04
W. E. Westall	27.19

106.94

For Shoeing Horses:—

M. J. Cahill	18.30
O. J. Carney & Co.	16.30
C. Desmond	2.50
J. J. Donnelly	93.05
J. Moriarty	16.90
G. R. Morse	11.30
Salois & Leith	19.00

177.35

For Cloth, Insignia, etc.:—

Adams & Co.	2.75
Cook, Taylor & Co.	6.25
M. F. Gookin Co.	4.50
M. Marks & Co.	245.33
Raphael Masstrangialo	43.10

Police Department—Continued

For Cloth, Insignia, etc.:—Continued

Merrimack Clothing Co.	2.00
S. Slater & Sons	71.85
Waterbury Button Co.	26.25

402.03

For Carriages, Harnesses and Repairs:—

Donovan Harness Co.	42.40
F. B. Hill & Co.	27.90
G. W. McElroy	4.00
D. W. Parker .....	.90
Salois & Leith	114.31
Sawyer Carriage Co.	8.30

197.81

For Express, Transportation, etc.:—

American Express Co.	1.55
Lowell Coach Co.	41.50
Manchester & Concord Express Co.	1.00
N. Y. & B. Despatch Express Co. ....	.60

44.65

For Hay, Grain, etc.:—

J. A. Boucher	1.65
J. B. Cover & Co.	71.65
G. M. Foster	127.03
G. L. Fowler	75.70
Fred A. Fox	76.59
Livingston Grain Co.	64.70
T. J. McDonald	58.10
Joseph Mullin	52.25
H. E. Noyes & Son	64.29
Wilder & Wotton	186.36

778.32

For Water, Lighting and Telephone:—

App. Water Works	87.83
Lowell Electric Light Corp.	346.46
Lowell Gas Light Co.	245.24
N. E. T. & T. Co.	90.14
Postal Cable Co.	3.73
Western Union Telegraph Co.	4.06

777.46

Police Department—Continued

For Fuel:—

John Brady	1.50
Edward Cawley	679.24
George Lynch	1.38

682.12

For Sundries:—

App. Auditor, O. E.	17.80
Geo. H. Bachelder	40.90
F. M. Bill & Co.	1.13
G. J. & D. Bradt	23.20
C. B. Coburn Co.	26.85
Frank Coburn	4.00
M. Alice Cox	80.00
Crown Studio	6.00
Derby & Morse .....	.93
Frank E. Devlin	10.00
Foye Bros.	1.25
Daniel Gage	54.75
A. R. Gardner	2.00
William Giroux	35.50
M. F. Gookin & Co.	8.80
Simon B. Harris	115.05
George E. Hutchins	7.00
W. A. Ingham Co.	4.00
Charles Laflamme	13.22
J. E. Leith	28.00
Lowell Laundry	66.04
W. C. MacBrayne	95.90
Mitchell, Wing & Co.	4.50
William B. Moffatt	19.95
N. E. Electric & Supply Co.	119.88
Page's Spa	1.00
Pawtucketville Cash Grocery	27.71
Amasa Pratt Co.	17.48
M. Senicol	10.00
W. A. Sherman	1.50
Talbot D. & C. Co.	149.62
The Automatic Time Stamp Co.	30.00
H. L. Timmons & Co.	22.65
George H. Wood	1.25
William Zimmer	6.95

1,037.01

4,977.10

22.90

Returned to General Treasury Fund

5,000.00

POUND KEEPER

Appropriation	5.00	
	<u> </u>	5.00
Expended		
To O. W. Peabody	5.00	
	<u> </u>	5.00

RIFLE RANGE**Wages**

Appropriation	626.00	
	<u> </u>	626.00
Expended		
For Wages	626.00	
	<u> </u>	626.00

Other Expenses

Appropriation	174.00	
	<u> </u>	174.00
Expended		
Cheney & Thomson Co.	5.00	
F. J. Flemings	12.11	
Harry F. Harding	24.14	
Lull & Hartford	91.00	
N. E. T. & T. Co.	40.01	
Thompson Hardware Co. ....	.30	
	<u> </u>	172.56
Returned to General Treasury Fund		1.44
		<u>174.00</u>

FIRE DEPARTMENT**Salaries and Wages**

Appropriation	126,375.00	
	<u> </u>	126,375.00

Expended

For Chief Engineer:—

Edward S. Hosmer	2,200.00	
	<u> </u>	2,200.00

For Assistant Chief Engineer:—

James F. Norton	1,500.00	
	<u> </u>	1,500.00

For Board of Engineers:—

Edward Meloy	400.00	
Charles Stackpole	400.00	
Charles E. Alway	400.00	
	<u> </u>	1,200.00

For Permanent Men	102,698.98	
For Call Men	14,792.71	
For Pensions	2,757.48	
	<u> </u>	

120,249.17

125,149.17

Returned to General Treasury Fund	1,225.83	
	<u> </u>	126,375.00

Other Expenses

Appropriation	25,000.00	
	<u> </u>	25,000.00

Fire Department—Continued

Expended

For Stationery, Printing, etc. :—

Baker Printing Co.	8.50
Buckland Printing Co.	9.00
Lambert Printing Co.	150.00
T. H. Lawler	1.25
G. C. Prince & Son	1.10
Sampson & Murdock Co.	3.00
Union Printing Co.	48.50
M. G. Wight & Co.	4.50
Wright & Potter Printing Co.	2.35

228.20

For Shoeing Horses :—

R. R. Armitstead	121.59
J. Blakely	8.80
J. P. Boland	15.75
M. J. Cahill	300.04
O. J. Carney & Co.	59.65
C. Desmond	299.15
J. J. Donnelly	177.00
M. J. Haggerty	89.00
W. H. McKinnon	11.65
A. D. Mitten	147.70
J. J. Moriarty	77.00
Provencher & Lovering	82.00
Henry Reynolds	89.25
S. A. Shattuck	61.59
C. C. Thompson	91.65
H. Twomey	207.35
C. H. Ward	24.65
J. T. Williamson	198.00

2,061.82

For Hay, Grain, etc. :—

Ame & Co.	10.00
J. A. Boucher	120.22
J. B. Cover & Co.	445.13
G. M. Foster	720.35
C. H. Hanson & Co., Inc.	564.67
Livingston Grain Co.	114.90
T. J. McDonald	1,084.46
J. Mullin	1,238.47

Fire Department—Continued**For Hay, Grain, etc.—Continued**

H. E. Noyes & Son	1,573.80
Pawtucketville Cash Grocery	26.25
Sabre Bros.	6.40
Wilder & Wotten	2,355.55

\$8,260.20

For Stable Supplies:—

Adams H. & P. Co. ....	.40
Bartlett & Dow	15.00
F. M. Bill & Co.	104.04
John Carr	1.00
Coates Clipper Co.	10.50
C. B. Coburn Co.	285.94
M. L. Ingalls	6.87
W. A. Ingham Co.	3.80
J. G. Lesure	14.00
Lowell Rendering Co.	27.60
Lowell Waste Co.	34.11
E. E. Smith	5.28
Talbot D. & C. Co.	128.90
H. F. Whiting	2.86
Whitman & Pratt Rendering Co.	34.50
James Whittet	1.50

\$676.30

For Furniture, Bedding, etc.:—

Cook, Taylor & Co.	130.00
J. J. Doherty & Co.	79.25
Gilbride Co.	69.62
L. W. Hawkes & Co.	4.00
A. E. O'Heir & Co.	6.60
A. G. Pollard Co.	24.50
The Robertson Co.	59.20
Workshop for the Blind	23.65

396.82

For Fuel:—

John Brady	6.50
Edward Cawley	2,322.25
W. T. Griffin	3.25
W. H. Harvey & Co.	9.75
George Lynch	21.00
E. A. Wilson & Co.	333.00

2,695.75

Fire Department—Continued

For Horses and Use of Horses:—

B. G. Brown	23.00
C. H. Hanson & Co., Inc.	1,823.57

\$1,846.57

For Veterinary:—

A. W. Baker	36.00
C. A. Hamblett	8.00
J. G. Lesure	24.50
C. E. Munn	39.00
W. A. Sherman	21.00
J. H. Sparks	65.00
J. A. Viles	26.00

219.50

For Water, Lighting and Telephone:—

App. Water Works	408.09
Lowell Electric Light Corp.	304.77
Lowell Gas Light Co.	1,998.97
N. E. T. & T. Co.	253.53

\$2,965.36

For Express, Transportation, etc.:—

American Express Co.	12.00
B. & M. R. R. ....	.50
C. L. Brown	3.74
Lowell Coach Co.	4.00
Manchester & Concord Express Co. ....	.40
C. K. Miller	20.25
N. Y. & B. Despatch Express Co.	22.76
J. H. Sparks	23.00

\$86.65

For Hardware, Fittings, Hose and Repairs:—

Adams H. & P. Co.	32.92
H. R. Barker Mfg. Co.	149.40
Bartlett & Dow	2.91
J. C. Bennett	23.45
Boston Engineers Supply Co.	100.50
Boutwell Bros.	9.18
C. Callahan Co.	60.23
C. C. C. Fire Hose Co.	1,540.00
Cheney & Thomson Co.	213.89
C. B. Coburn Co.	68.39

Fire Department—Continued**For Hardware, Fittings, Hose and Repairs:—Continued**

Gamewell Fire Alarm Telegraph Co.	15.43
C. E. Guthrie & Son	5.31
W. H. Hope Co.	1.00
International Power Co.	2.80
J. Kelley & Co.	2.00
N. D. Lafleur	1.40
Lamson Plumbing Specialities Co.	75.00
W. A. Mack Co.	4.50
C. N. Perkins Co.	5.00
Pettingill Andrew Co.	3.00
Pevey Foundry Co.	3.88
Scannell Boiler Works	16.55
Scott & O'Day	12.45
E. E. Smith	18.70
Thompson Hardware Co.	27.45
Universal Brass Foundry	10.36
Weston Electric Instrument Co.	2.15

\$2,407.85

For Carriages, Harnesses and Repairs:—

Robert Barris	52.25
C. E. Berry	4.80
E. P. Bryant	32.20
A. H. Cluer	21.40
Donovan Harness Co.	225.35
C. K. Hammond	2.25
F. B. Hill & Co.	583.75
G. W. McElroy	53.50
D. W. Parker	18.05
Parker Harness Co.	37.35
A. Roy	27.77
Salois & Leith	18.62
Sawyer Carriage Co.	290.76
J. H. Swett	16.16
H. W. Tinker	2.65

\$1,386.86

For Electrician's Supplies:—

Derby & Morse	74.10
Gamewell Fire Alarm Telegraph Co.	31.00
W. C. Hinckley	9.00
N. E. Electric and Supply Corp.	26.10
Tucke & Parker Co.	23.77

163.97

Fire Department—Continued

For Sundries:—

Burnham & Davis Lumber Co.	5.43
C. G. Braxmar	3.75
W. P. Brazer & Co.	2.00
Frank J. Campbell	1.50
C. E. Carter	2.75
C. B. Coburn Co.	78.57
Columbia Refining Co.	21.60
Creamery Lunch	62.50
Cross Awning and Sign Co.	20.00
L. S. Cutler	60.55
F. J. Flemings	31.50
Foye Bros.	15.00
H. L. Gonzales	2.50
C. E. Guthrie	8.00
C. H. Hanson & Co., Inc.	57.00
Pierre Z. Hebert	5.00
C. I. Hood Co.	7.00
E. S. Hosmer	83.95
G. E. Hutchins	13.77
F. W. Jenness	112.00
F. A. Kappler	5.00
A. L. Kittredge & Co.	143.63
A. Lawrence	2.00
Lowell Inn	16.00
Lundberg Bros.	149.71
G. E. Maker	10.00
E. Moran	30.00
J. F. McKissock	19.66
D. L. Page Co.	14.00
Pawtucketville Cash Grocery	12.75
Amasa Pratt Co.	5.38
Pratt & Forrest	11.17
T. H. Randall	9.50
Harry Raynes	5.25
Regan & Kerwin	1.00
Scovil Mfg. Co.	70.50
Waverly Hotel	4.00
W. E. Westall	14.50
M. G. Wight & Co. ....	.70
Wright & Potter	1.40
Sam Yafa	4.00
App. Auditor, Other Expenses	20.00

Fire Department—Continued

For Sundries :—Continued

App. Engineering	15.01
App. Buildings, Other Expenses	44.90

 1,204.43

 24,600.28

Returned to General Treasury Fund

 399.72

 \$25,000.00

BUILDING DEPARTMENT**Salaries**

Appropriation	4,163.50
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 4,163.50

Expended

Walter W. Smith, Inspector	24.65
James Dow, Inspector	1,775.35
A. E. Burnham, Deputy Inspector	1,252.00
Joseph F. Roarke, Clerk	1,111.50

 \$4,163.50

Wages

Appropriation	7,293.68
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 7,293.68

Expended

For Wages :—

To Sundry Persons	6,725.78
Returned to General Treasury Fund	567.90

 7,293.68

Building Department—Continued

Other Expenses

Appropriation	8,770.39	
		<u>8,770.39</u>

Expended

For Board of Horses:—

O. P. Davis	250.00
C. H. Hanson & Co.	11.25
A. B. Humphrey	109.85
Lowell Coach Co.	232.00
J. H. Sparks	410.86

1,013.96

For Shoeing Horses:—

R. R. Armitstead	1.50
Jas. Blakely	35.05
J. J. Donnelly	6.20
C. H. Hanson & Co.	1.75
A. D. Mitten	98.72
Geo. R. Morse	17.25
Morse & Sparks	14.20
John Powers	2.00
Henry Reynolds	24.25
W. Wrigley & Co.	2.30

203.22

For Paints, Oils, etc.:—

Adams H. & P. Co.	18.20
S. Bean.	80.25
Cancos Mfg. Co.	7.34
M. D. Clay	27.80
C. B. Coburn Co.	107.65
Early Paint Co.	35.00
E. E. Smith	6.60

282.84

For Express, Transportation, etc.:—

American Express Co. ....	.60
B. & N. St. Railway	35.00
Lowell Coach Co.	12.00
C. K. Miller	20.25
J. H. Sparks	13.45

81.30

Building Department—Continued**For Carriages, Harnesses and Repairs:—**

Donovan Harness Co.	5.00
C. H. Hanson & Co.	49.00
F. B. Hill & Co.	53.35
G. W. McElroy	41.75
Salois & Leith	38.65
J. H. Sparks	8.00

195.75

For Plumbing, Pipe, Fittings, etc.:—

H. R. Barker Mfg. Co.	125.85
Boston Steam Specialty Co.	4.04
Carroll Bros.	262.54
T. Costello & Co.	67.52
J. D. Danahy	26.76
Derby & Morse	22.88
E. F. Farrell	483.46
Farrell & Conaton	80.46
Gaffney & Kerwin	24.50
Chas. E. Gee	86.50
John Kelley & Co.	57.60
Lowell Furnace Co.	55.40
W. A. Mack Co.	20.87
Joseph C. McCarron & Co.	264.59
J. F. McMahon & Co.	5.80
Middlesex Machine Co.	3.00
John J. Mullaney	56.65
D. W. Mullin & Co.	19.10
Otis Elevator Co.	32.03
Scannell Boiler Works	214.73
Scott & O'Day	657.49
P. F. Welch	32.70
Welch Bros.	426.78
D. H. Wilson & Co.	3.03

3,034.28

For Plastering, Roofing, Concrete, etc.:—

W. H. Bamford	26.35
E. Bibault	83.30
B. F. Crosby & Co.	3.78
J. L. Douglass & Co.	484.68
C. F. George & Co.	43.73
Philip Ginty	44.75
J. L. Gordon	24.10

Building Department—Continued

For Plastering, Roofing, Concrete, etc.:—Continued

Gumb Bros.	9.00
Hamilton Mfg. Co.	20.00
J. J. O'Brien	40.46
Samuel E. Snow	78.31
D. T. Sullivan	10.55
Taylor Roofing Co.	4.50
Jas. Walsh & Son	34.00
S. H. Weaver & Co.	22.60
E. A. Wilson & Co.	69.81

999.92

For Lumber:—

Burnham & Davis Lumber Co.	294.77
Davis & Sargent Lumber Co.	40.30
J. B. Goodwin	6.50
Charles E. Howe & Co.	52.18
Amasa Pratt Co.	843.41
Pratt & Forrest	30.34
Est. W. H. Wiggin	59.61

1,327.11

For Stationery, Printing, etc.:—

Baker Printing Co.	4.75
Carter's Ink Co. ....	.38
Courier-Citizen Co.	18.00
Dumas & Co.	19.75
Franklin Press	5.00
H. C. Kittredge	1.50
T. H. Lawler	7.00
T. F. McCarthy	2.75
R. C. Paradis	21.50
G. C. Prince & Son	55.23
Sampson & Murdock Co.	3.00

138.86

For Hardware, etc.:—

Adams H. & P. Co.	92.97
F. G. Baldwin	9.00
W. T. S. Bartlett	5.20
J. C. Bennett	85.22
Boutwell Bros.	3.32
Cheney & Thomson Co.	172.57
C. B. Coburn Co.	31.10

Building Department—Continued

For Hardware, etc.:— Continued

H. C. Girard Co.	13.75
C. F. Hoisington & Son	65.92
N. D. Lafleur	13.30
W. A. Mack Co.	9.04
E. E. Smith & Co.	6.60
Thompson Hardware Co.	7.92
•	

515.91

For Sundries:—

App. Auditor O. E.	6.00
App. Water Works	93.10
J. Avison Baker	212.50
P. Blanchard	6.80
F. M. Bill & Co.	4.00
B. & N. St. Railway.....	5.00
Edward Cawley	123.60
C. B. Coburn Co.	29.77
P. Cogger	4.50
J. J. Doherty & Co.	4.18
Joseph Fernley	9.00
Foye Bros.	7.50
W. J. Gunston .....	.75
C. H. Hanson & Co.	36.25
A. B. Humphrey	8.57
Keefe Bros .....	.25
Kelty Bros.	1.50
A. L. Kittredge & Co.	9.35
Lowell Electric Light Corp.	202.49
Lowell Gas Light Co.	18.00
Chas. E. Munn	26.00
N. E. T. & T. Co.	11.94
A. G. Pollard Co.	22.53
Amasa Pratt Co.	5.32
Pratt & Forrest	2.00
F. E. Putnam	9.55
Talbot D. & C. Co. ....	.99
Waverly Hotel	7.30
John A. Weinbeck	106.75
Whitman & Pratt Rendering Co.	1.00
William Zimmer .....	.75

977.24

8,770.39

Building Department—Continued**Janitors**

Appropriation	2,091.50	
	<u>2,091.50</u>	2,091.50
Expended		
To Sundry Persons	2,091.50	•
	<u>2,091.50</u>	2,091.50

WIRE DEPARTMENT**Salaries**

Appropriation	2,226.00	
	<u>2,226.00</u>	2,226.00
Expended		
William R. Foster, Inspector	1,600.00	
A. M. Wood, Clerk	626.00	
	<u>2,226.00</u>	2,226.00

Other Expenses

Appropriation	300.00	
	<u>300.00</u>	300.00
Expended		

For Stationery, Printing, etc. :—

Buckland Printing Co.	10.50
Carter's Ink Co. ....	.75
Courier-Citizen Co.	11.50
Dumas & Co.	10.25
Electrocraft Publishing Co.	1.00
Electrical Review	6.00
Franklin Press	5.00
Chas. E. Galley	11.05
G. C. Prince & Son	71.07
Sampson & Murdock Co.	3.00
	<u>130.12</u>

Wire Department—Continued**For Sundries :—**

American Express Co. ....	.90
B. & M. R. R.	24.25
O. P. Davis	2.00
Derby & Morse	5.00
W. R. Foster	80.30
Lowell Coach Co.	8.00
N. E. T. & T. Co.	4.08
N. E. Electric & Supply Corp. ....	.60
Richardson Hotel	16.60
J. H. Sparks	22.00
Thompson Hardware Co.	3.75

167.48

297.60

Returned to General Treasury Fund

2.40

300.00
FIRE DEPT. UNDERGROUND WIRES

Balance January 1, 1909 213.80

213.80
Expended

Gamewell Fire Alarm Telegraph Co.	130.00
N. E. T. & T. Co.	33.98

163.98

Returned to General Treasury Fund

49.82

213.80
NEW CENTRALVILLE FIRE HOUSE

Balance, January 1, 1909	7,005.73
Appropriation	950.00

7,955.73

New Centralville Fire House—Continued

Expended

For Labor:—

To Sundry Persons	819.68
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819.68

Burnham & Davis Co., lumber	1.66
Edward Cawley, fuel	64.19
Chas. P. Conant, carpenter work	3,202.65
Cheney & Thomson Co., oils, etc.	52.50
C. B. Coburn Co., oils, etc.	91.40
P. P. Connors, paving blocks	361.25
J. L. Douglass & Co., metal work	160.00
Farrell & Conaton, steam and gas	758.00
Farrell & Conaton, plumbing	991.80
Harry P. Graves, architect	256.87
Meneely Bell Co., bell	585.00

6,525.32

For Sundries: —

App. Water Works	25.92
Boutwell Bros. ....	.66
Gamewell Fire Alarm Telegraph Co.	7.88
Gilbride Co.	19.80
A. L. Kittredge & Co.	6.00
Lowell Electric Light Corp.	1.77
N. E. Electric & Supply Corp.	112.84
Nichols Foundry Co.	15.28
E. A. & J. A. Simpson	65.55
Welch Bros.	71.70
App. Pub. Bldgs., Wages	18.69
App. Pub. Bldgs. Other Expenses	73.02

419.11

7,764.11

Balance to 1910	191.62
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7,955.73

PAINTING CITY HALL

Balance Jan. 1, 1909	662.83
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662.83

Painting City Hall—Continued**Expended**

For Wages:—

To Sundry Persons	524.09
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524.09

For Sundries:—

App. Pub. Bldgs., Labor	17.20
Adams H. & P. Co.	7.80
H. R. Barker Mfg. Co.	2.00
Cheney & Thomson Co.	86.90
C. B. Coburn Co.	17.54
C. E. Guthrie & Son	7.15

138.59

Returned to General Treasury Fund15
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662.68

662.83

SHOWER BATHS AT HOSE 7

Balance January 1, 1909	63.77
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63.77

Expended

For Labor:—

To Sundry Persons	63.51
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Returned to General Treasury Fund26
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63.77

WEIGHER**Salary**

Appropriation	800.00
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800.00

Expended

To George F. Noonan, Weigher	800.00
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800.00

Weigher—Continued**Other Expenses**

Appropriation	10.00	
		10.00
Expended		
Baker Printing Co.	5.50	
C. B. Coburn Co. ....	.53	
G. C. Prince & Son .....	.65	
		6.68
Returned to General Treasury Fund		3.32
		10.00

CITY SEALER**Salaries and Wages**

Appropriation	1,700.00	
		1,700.00
Expended		
John W. Stott, Sealer	1,200.00	
John Nestor, Clerk	498.50	
		1,698.50
Returned to General Treasury Fund		1.50
		1,700.00

Other Expenses

Appropriation	502.61	
		502.61
Expended		
For Stationery, Printing, etc. :—		
Baker Printing Co.	2.00	
Butterfield Printing Co.	20.75	
Courier-Citizen Co.	1.80	
Lowell Sun	3.00	
G. C. Prince & Son	3.25	
Sampson & Murdock Co.	3.00	
		33.80

City Sealer—Continued

For Sundries:—

J. C. Bennett	2.15
Boutwell Bros.	1.85
C. B. Coburn Co.	2.95
J. J. Donnelly	19.30
W. & L. E. Gurley	7.20
J. J. Hargraves	29.50
Horne Coal Co.	4.00
Knowles Scale Works	13.28
Geo. H. Taylor	271.20
Thompson Hardware Co.	1.69
L. A. Wing	112.50

465.62

Returned to General Treasury Fund

499.42

3.19

502.61

BUILDING REPAIRS AND IMPROVEMENTS

Appropriation	12,150.00
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12,150.00

Expended

For Wages:—

To Sundry Persons	2,155.56
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2,155.56

For Plastering, Roofing, Concrete, etc.:—

F. G. Baldwin	225.00
Sylvester Bean	538.84
E. Bibault	364.36
Edward Cawley	4.80
Matthias F. Connor	586.30
B. F. Crosby & Co.	669.35
J. L. Douglass & Co.	31.00
C. F. George & Co.	239.42
Jas. L. Gordon	12.35
A. O. Knapp	150.00
Lowell Wall Paper Co.	331.32

Building Repairs and Improvements—Continued

For Plastering, Roofing, Concrete, etc.:—Continued

J. A. & E. A. Simpson	346.58
E. A. & A. T. Smith	404.46
S. E. Snow	75.00
Jas. Walsh & Son	82.81

 4,061.59

For Hardware, Plumbing, etc.:—

Adams H. & P. Co.	2.80
H. R. Barker Mfg. Co.	40.00
W. T. S. Bartlett	374.19
J. C. Bennett	3.20
Chamberlin M. W. S. Co.	51.62
Cheney & Thomson Co.	4.45
John A. Cotter	88.18
Jas. D. Danahy	95.23
Harry S. Drury	104.81
E. F. Farrell	33.55
Gaffney & Kerwin	208.12
Jas. L. Gordon	584.65
Chas. Hanchett & Co.	40.40
C. F. Hoisington & Son	114.02
John Kelley & Co.	125.63
Lowell Furnace Co.	71.59
Lowell Gas Light Co.	463.65
W. A. Mack Co.	1,029.07
Middlesex Oven Mfg. Co.	416.50
Rice & Co.	3.73
Scannell Boiler Works	767.41
Scott & O'Day	398.86
H. H. Wilder & Co.	489.71

 5,511.37

For Lumber:—

Burnham & Davis Lumber Co.	14.50
Davis & Sargent Lumber Co.	93.50
W. E. Hatch	41.80
Amasa Pratt Co.	89.46

 239.26

Building Repairs and Improvements—Continued**For Sundries:—**

Sylvester Bean	135.00
N. Y. N. H. & H. R. R.	42.16

177.16

12,144.94

Returned to General Treasury Fund 5.06

\$12,150.00
FIRE DEPARTMENT, NEW APPARATUS AND FURNISHINGS

Appropriation 17,000.00

17,000.00
Expended

Adams & Co.	127.00
Edward Cawley	287.15
C. C. C. Hose Co.	1,400.00
Combination Ladder Co.	440.00
Gamewell Fire Alarm Telegraph Co.	500.00
Gilbride Co.	35.56
C. H. Hanson & Co.	350.00
O'Donnell Dry Goods Co.	154.25
A. E. O'Heir & Co.	30.80
OKonite Co.	254.92
A. G. Pollard Co.	42.00
Robertson Co.	114.00

3,735.68

Returned to General Treasury Fund 1,000.00

Balance to 1910 12,264.32

17,000.00
NEW HEATER IN LAWRENCE ST. ENGINE HOUSE

Appropriation 150.00

150.00

New Heater in Lawrence Street Engine House—Continued

Expended

App. Buildings, Repairs and Improvements	150.00	
	<u> </u>	150.00

NEW FIRE ALARM AND GONGS

Appropriation	800.00	
	<u> </u>	800.00

Expended

Cheney & Thomson Co.	74.84	
Gamewell Fire Alarm Telegraph Co.	280.00	
OKonite Co.	393.00	
N. E. Electric and Supply Co.	28.50	
N. Y. N. H. & H. R. R.	5.06	
	<u> </u>	781.40
Returned to General Treasury Fund		18.60
		<u> </u>
		\$800.00

HEALTH AND SANITATION—7

Health Office, S. & W.; Health Office, O. E.; Health Yard, S. & W.; Health Yard, O. E.; Insp. Animals, S.; Insp. Milk & Vinegar, S. & W.; Insp. Milk & Vinegar, O. E.; Sewer Maintenance, S. & W.; Sewer Maintenance, O. E.; Sewer Construction; Wigginvillle Sewer; Oakland Sewer.

HEALTH DEPARTMENT

Health Office

Salaries and Wages

Appropriation	9,959.75	
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		9,959.75
		<hr/>

Expended

Board of Health:—		
L. Huntress	500.00	
W. C. Doherty	6.85	
C. W. Taylor	6.85	
G. F. Martin	493.15	
D. J. Murphy	493.15	
	<hr/>	
		1,500.00
Bacteriologist:—		
T. B. Smith	600.00	
	<hr/>	
		600.00
Agent:—		
F. A. Bates	1,825.00	
	<hr/>	
		1,825.00
Clerk:—		
Katherine Snow	704.25	
	<hr/>	
		704.25
Inspectors	5,330.50	
	<hr/>	
		5,330.50
		<hr/>
		9,959.75

Health Office—Continued

Other Expenses

Appropriation	3,820.17
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3,820.17

Expended

For Stationery, Printing, etc.:—

American Journal	1.00
Baker Printing Co.	59.50
Buckland Printing Co.	53.25
Carter's Ink Co.	1.13
Courier-Citizen Co.	17.10
Davis Printing Co.	19.75
Dumas & Co.	7.25
Franklin Press	18.00
T. H. Lawler	3.40
Library Bureau	3.75
Osmond Long	2.50
Lowell Sun	12.00
Lowell T. & O. Supply Co.	2.40
M. McAdams	1.75
T. F. McCarthy	19.25
Municipal Journal and Engineer	5.00
Munson Supply Co.	5.00
G. C. Prince & Son	34.70
Riley & Sanborn	1.50
Sampson & Murdock Co.	6.00
Smith Typewriter Inspection Co.	4.65
F. A. M. Tobin's Printery	2.50
Union Printing Co.	182.14

463.52

For Laboratory Supplies:—

H. M. Alexander Co.	92.75
F. & E. Bailey .....	.50
Bausch & Lomb Optical Co.	13.57
Frank J. Campbell	2.10
Clinton Mfg. Co.	10.00
Dean, Foster & Co.	38.25
J. A. Fallon	6.00
Frye & Crawford	2.50
R. J. Lang & Co.	1.00

Health Office—Continued

For Laboratory Supplies:—Continued

Talbot D. & C. Co.	10.20
H. L. Timmons	15.75
H. E. Webster	19.00

211.62

For Professional Services:—

D. S. Bellehumeur	5.00
J. F. Boyle	2.00
P. Brunelle	8.00
A. E. Gillard	4.00
T. J. Halloran	2.00
A. J. Halpin	7.00
H. W. Jewett	16.00
W. A. Johnson	433.00
E. G. Livingston	11.00
T. B. Smith	137.70

625.70

For Express, Transportation, etc.:—

American Express Co.	13.00
Boston & Maine R. R. ....	.75
B. & N. St. Railway	15.00
M. & C. Express Co.	1.60
N. Y. & B. Despatch Express Co. ....	.75

31.10

Care of Patients in Hospitals:—

Com. of Mass.	59.20
Lowell General Hospital	44.00
Lowell Hospital	232.64
Mass. Sanatorium	170.83
No. Reading State Sanatorium	32.57
St. John's Hospital	113.00
Tewksbury Hospital	282.80

\$935.04

For Sundries:—

App. Auditor O. E.	6.00
App. Charity O. D. R.	157.05
App. Charity Hospital	32.80
F. A. Bates	4.00
Bon Marche .....	.98
W. H. Brown	12.11

Health Office—Continued**For Sundries:—Continued**

C. B. Coburn Co.	5.86
M. Alice Cox	25.00
City of Boston	760.71
City of Cambridge	82.93
City of Holyoke	15.20
City of Lynn	29.57
City of Salem	100.07
Harry Demara	2.00
J. H. Dunham	12.00
Everett Market	47.23
Ft. Hill Market	28.07
J. W. Green	4.00
C. F. Hatch Co.	35.00
B. W. Husbeck	1.50
Kelty Bros.	1.20
Abbott Lawrence	1.25
Lull & Hartford	2.50
Mass. Asso. Boards of Health	8.00
Russell McDonald	20.24
J. H. Murray	18.00
N. E. T. & T. Co.	7.39
A. G. Pollard Co.	6.00
John Reynolds	4.00
Robertson Co.	7.00
T. Robitaille	4.00
Royal Cash Market	16.33
Sampson Co.	1.83
Rose Scott	16.00
W. A. Sherman	10.00
Stanley Coal and Wood Co.	2.00
J. J. Sullivan	4.00
F. H. Thomas Co.	3.00
Town of Ipswich	36.50
F. A. Tuttle	21.87

 1,553.19

 \$3,820.17
Health Yard**Salaries and Wages**

Appropriation	34,228.34
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 34,228.34

Health Yard—Continued

Expended

Sundry Persons	32,876.36
Thomas F. Garvey, Execution of Court	1,351.98

 34,228.34

Other Expenses

Appropriation	8,927.52
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 8,927.52

Expended

For Horses, Use of Horses, Teaming:—

C. H. Hanson Co.	580.00
C. P. Salls	228.00

 808.00

For Water and Lighting:—

App. Water Works	94.77
Lowell Electric Light Corp.	15.61
Lowell Gas Light Co.	45.90

 156.28

For Hay, Grain, etc.:—

Joseph Bowers	178.30
J. B. Cover & Co.	433.06
Geo. M. Foster	205.05
Est. Fred Fox	177.75
Michael Maguire	13.05
T. J. McDonald	733.00
Joseph Mullin	1,677.67
H. E. Noyes & Son	660.87
Sarre Bros.	15.86
Wilder & Wotton	1,708.48

 5,803.09

For Paints, Oils, etc.:—

J. C. Bennett	1.95
C. B. Coburn Co.	11.68
Talbot D. & C. Co.	7.05

 20.68

Health Yard—Continued

For Hardware, Fittings, etc.:—

Adams H. & P. Co.	8.60
H. R. Barker Mfg. Co.	3.50
J. C. Bennett	35.24
Boutwell Bros.	244.59
Cheney & Thomson Co.	28.30
C. B. Coburn Co.	2.28
W. A. Mack Co.	2.40
Thompson Hardware Co. ....	.45

325.36

For Carriages, Harnesses and Repairs:—

Donovan Harness Co.	106.60
A. Gaudette	9.00
F. B. Hill & Co.	15.70
Geo. W. McElroy	6.90
D. W. Parker	14.00
Sawyer Carriage Co.	53.10

205.30

For Fuel, Cement, etc.:—

A. A. Brown	158.65
Edward Cawley	94.64
Horne Coal Co.	21.00
E. A. Wilson & Co.	32.10

306.39

For Sundries:—

App. Bldgs. O. E.	72.28
F. M. Bill & Co.	3.38
B. & N. St. Railway	5.00
C. B. Coburn Co.	2.05
Connors Bros.	192.00
R. A. Davis	6.50
Davis & Sargent Lumber Co.	30.00
Eastern Drug Co.	4.00
J. R. Fallon	2.00
Foye Bros.	7.50
Daniel Gage	10.30
Gilbride Co.	7.58
C. H. Hanson Co.	36.00
Kelty Bros.	2.75
Chas. D. Kent	2.50
Larson & Bentley	42.00

Health Yard—Continued

For Sundries:—Continued

Lowell Laundry	40.68
Manchester & Concord Express Co. ....	.25
F. E. McNabb	6.55
E. A. McQuade	27.78
N. E. T. & T. Co. ....	.10
O'Sullivan Bros. Co.	1.00
Pawtucketville Cash Grocery	12.82
A. G. Pollard Co.	7.50
Chas. E. Robinson	11.00
M. B. Senecal	3.00
W. A. Sherman	52.00
Shepard, Clark & Co.	6.00
J. H. Sparks .....	.70
Talbot D. & C. Co.	45.25
H. L. Timmons	14.00
H. F. Whiting	10.00
Whitman & Pratt Rendering Co.	48.50

712.97

8,338.07

Returned to General Treasury Fund

589.45

\$8,927.52

INSPECTOR OF ANIMALS

Salaries

Appropriation	10.00
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10.00

Expended

W. A. Sherman, Inspector	10.00
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10.00

Other Expenses

Appropriation	10.00
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Inspector of Animals—Continued

Expended

G. C. Prince & Son	10.00
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 10.00

INSPECTOR OF MILK AND VINEGAR

Salaries and Wages

Appropriation	2,207.87
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 2,207.87

Expended

Leroy Turner, Inspector	500.00
Melvin F. Master, Inspector	1,003.12
James E. Hill, Collector	704.75

 2,207.87

Other Expenses

Appropriation	229.14
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 229.14

Expended

For Stationery, Printing, etc.:—

Baker Printing Co.	10.00
Buckland Printing Co.	2.00
Davis Printing Co.	1.75
Dumas & Co.	14.50
H. C. Kittredge .....	.60
Lambert Printing Co.	10.00
Thomas H. Lawler	1.50
Lawler Printing Co.	4.50
G. C. Prince & Son	7.80
Sampson & Murdock Co.	3.00
F. A. M. Tobin's Printery	3.50
Union Printing Co.	3.50

 62.65

Inspector of Milk and Vinegar—Continued**For Laboratory Supplies:—**

Dean, Foster Co.	47.02
Eimer & Amend	44.06
Talbot D. & C. Co.	10.00

101.18

For Sundries:—

Adams H. & P. Co.	3.25
American Express Co. ....	.90
David Bellerose	10.25
C. B. Coburn Co.	1.67
Kelty Bros. ....	.20
Lowell Coach Co.	4.00
Manchester & Concord Express Co. ....	.30
N. Y. & B. Despatch Express Co. ....	.95
N. E. T. & T. Co.	43.32
N. Y. N. H. & H. R. R. ....	.42
E E. Smith .....	.05

65.31

\$229.14

SEWER MAINTENANCE**Salaries and Wages**

Appropriation	14,940.86
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14,940.86

Expended

To Sundry Persons	14,517.80
Returned to General Treasury Fund	423.06

14,940.86

Other Expenses

Appropriation	10,620.64
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10,620.64

Sewer Maintenance—Continued

Expended

For Carriages, Harnesses and Repairs:—

E. P. Bryant	3.53
A. H. Cluer	4.00
Donovan Harness Co.	7.00
G. W. McElroy	4.50
Sawyer Carriage Co.	53.65

72.68

For Boots and Repairing:—

Samuel Fleming	20.05
O'Sullivan Bros. Co.	92.25

112.30

For Lumber:—

W. H. Bean	8.00
Burnham & Davis	124.61
Davis & Sargent	114.01
W. E. Hatch	12.00
Pratt & Forrest	16.73
Amasa Pratt Co.	82.83

358.18

For Hardware, Tools, etc.:—

App. Water Works	48.25
Adams H. & P. Co.	35.76
H. R. Barker Mfg. Co.	40.00
Bartlett & Dow .....	.50
John C. Bennett	186.86
H. L. Bond Co.	117.45
Boston Engineers Supply Co.	1,406.85
Boutwell Bros.	115.68
Brown Hosiery Co.	28.50
Carroll Bros.	8.02
Cheney & Thomson Co.	189.61
A. A. Clark	18.00
C. B. Coburn Co. ....	.60
Derby & Morse	99.89
Farrell & Conaton .....	.15
Joseph Fernley	2.00
H. C. Girard Co.	42.70

Sewer Maintenance—Continued

For Hardware, Tools, etc.:—Continued

C. E. Guthrie & Son	7.85
C. F. Hoisington & Son	39.80
N. D. Lafleur	53.10
Lidgerwood Mfg. Co.	3.50
W. A. Mack Co.	16.30
W. H. McElholm	5.30
Middlesex Machine Co.	9.57
F. S. Perkins Co.	933.24
E. E. Smith	2.74
Thompson Hardware Co.	60.10
Union Iron Foundry	1,249.86
Welch Bros.	23.10
H. H. Wilder & Co.	1.95
William Zimmer .....	.95

\$4,748.18

For Brick, Cement, Fuel, etc.:—

Edward Cawley	127.54
Horne Coal Co.	30.31
E. A. & A. T. Smith	1.50
D. T. Sullivan	2,008.37
E. A. Wilson & Co.	36.54

2,204.26

For Executions of Court:—

Julia E. Fagan	27.00
Thomas Fagan	33.00

60.00

For Sundries:—

App Water Works	53.30
App. Auditor O. E.	10.00
App. Engineering	101.89
Baker Printing Co.	7.25
J. C. Bennett	10.52
Boston & Maine R. R.	33.83
Edward Cawley	12.50
J. L. Chalifoux	45.25
A. A. Clark	15.30
C. B. Coburn Co.	125.64
Chas. Daggett	5.00
J. L. Douglass & Co.	2.63
C. H. Hanson & Co.	12.50
W. M. Howe	9.24
Geo. E. Hutchins	50.87

Sewer Maintenance—Continued

For Sundries :—Continued

Lepine & Co.	15.00
Locks & Canals Co.	51.51
Lowell Electric Light Corp.	13.32
Lowell Gas Light Co.	2.00
Lowell Waste Co.	18.19
Manchester & Concord Express Co. ....	.50
T. J. McDonald	4.70
Edward Moran	15.00
J. F. Morrison	32.50
J. Mountford	10.00
N. E. Electric and Supply Co.	3.75
H. E. Noyes & Son	3.13
Pawtucketville Cash Grocery	56.00
F. E. Putnam	9.10
D. A. Reardon	5.00
Chas. E. Robinson	18.00
Fred H. Rourke	17.50
Southwick Estate	1.26
C. L. Smith	6.49
J. H. Sparks	18.00
A. G. Stiles ....	.65
J. J. Sullivan	1.10
Talbot Clothing Co.	59.50
Taylor Roofing Co.	10.50

 568.42

 8,424.02

Returned to General Treasury Fund

 2,196.62

 \$10,620.64
SEWER CONSTRUCTION

Appropriation 51,177.02

 51,177.02
Expended

For Labor :—

To Sundry Persons 32,197.60

 32,197.60

Sewer Construction—Continued

For Cement, Pipe, etc.:—

Edward Cawley	3,232.36
Horne Coal Co.	17.60
D. T. Sullivan	129.75
E. A. Wilson & Co.	1,547.00

4,926.71

For Hardware, Fittings, etc.:—

App. Water Works	2.90
Boston Engineers Supply Co.	27.39
Boutwell Bros.	12.57
Derby & Morse	9.50
Joseph Fernley	5.68
Middlesex Machine Co.	8.87
Thompson Hardware Co.	19.45
Union Brass Foundry	2.55
Union Iron Foundry	89.19
Upton & Gilman	11.21

189.31

For Sundries:—

App. Water Works	32.70
B. & M. R. R.	15.79
Thomas Burns	116.00
C. B. Coburn Co.	13.69
Donovan Harness Co.	1.50
C. H. Hanson Co.	17.50
C. E. Howe Co.	8.09
Geo. Husson	75.00
F. W. Lazelle	3.30
Lowell Electric Light Corp.	28.00
Colin McDonald	100.00
John Meehan	124.00
Joseph Mullin	40.00
J. P. Quinn	20.00
J. J. Smith	55.00
App. Engineering	1,820.76
App. Street, Wages	418.58
App. Streets, O. E.	428.28
App. Sewer Maint., Wages	1,984.34
App. Sewer Maint., O. E.	7,660.93

12,963.46

50,277.08

Returned to General Treasury Fund

899.94

\$51,177.02

WIGGINVILLE SEWER

Balance, January 1, 1909	2,427.34	
Receipts	26.75	
		<u>2,454.09</u>

Expended

For Labor :—

To Sundry Persons	625.16
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625.16

For Sundries :—

App Sewer Maint., O. E.	187.67
App. Streets, Wages	59.60
App. Streets, O. E.	92.25
App. Water Works	124.45
Boston & Maine R. R.	31.78
Edward Cawley	110.14
P. S. & M. A. Smith	150.00
A. C. Wheelock	250.00

1,005.89

Balance to 1910

1,631.05

823.04

\$2,454.09

OAKLAND SEWER

Appropriation	6,124.72
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6,124.72

Expended

For Labor :—

To Sundry Persons	5,075.56
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5,075.56

For Cement, Fuel, etc. :—

Edward Cawley	145.49
E. A. Wilson & Co.	464.94

610.43

Oakland Sewer—Continued

For Hardware, Fittings, etc. :—

H. R. Barker Mfg. Co.	30.24
J. C. Bennett	8.66
C. B. Coburn Co. ....	.20
Joseph Fernley	1.00
Middlesex Machine Co.	3.69
	<hr/>

43.79

For Sundries :—

App. Water Works	25.41
Boston & Maine R. R.	6.30
	<hr/>

31.71

5,761.49

Returned to General Treasury Fund

363.23

 \$6,124.72

HIGHWAYS AND BRIDGES—8

Engineering; Streets, Supervision and Salaries; Streets, Wages; Streets, Other Expenses; Lighting; Street Watering, Wages; Street Watering, Other Expenses; New Sidewalks; Grade Crossings; Care of Trees; Moths; Moths in Flight; Moody St. Bridge; Macadam, Foster and others; State Highway Tax; Merrimack and Middlesex Streets; Boulevard; Cabot Street Bridge.

ENGINEERING

Appropriation	14,049.21	
		14,049.21

Expended

To George Bowers, Engineer	2,700.00	
To Sundry Persons, Wages	10,251.91	
		12,951.91

For Stationery, Printing, etc. :—

Buckland Printing Co.	2.50
Butterfield Printing Co.	12.80
Carter's Ink Co. ....	.38
Dumas & Co.	45.85
Hooper, Lewis & Co.	9.75
Library Bureau	10.00
The Lufkin Rule Co.	2.47
B. L. Makepeace	52.83
Chas. E. Moss	3.60
Municipal Engineering Co.	2.00
Municipal Journal and Engineer	6.00
G. C. Prince & Son	69.75
Sampson & Murdock Co.	16.80
Smith Premier Typewriter Co.	2.00
The Engineering Record	3.00
Union Printing Co.	9.50

249.23

Engineering—Continued

For Express, Transportation, Telephone :—

American Express Co.	3.22
Manchester & Concord Express Co.	1.10
N. Y. & B. Despatch Express Co. ....	.45
N. Y. N. H. & H. R. R. ....	.90
N. E. T. & T. Co.	40.48
J. H. Sparks	6.00

 52.15

For Sundries :—

App. Auditor O. E.	4.00
Arthur Bartlett	6.95
J. C. Bennett	3.85
Chester A. Blake	1.60
Geo. Bowers	51.52
G. W. Bowers	17.00
P. E. Burnham	21.00
W. W. Carey Co.	5.25
Cheney & Thomson Co. ....	.45
C. B. Coburn Co. ....	.40
Donovan Harness Co.	4.00
Frederic H. Fay	10.00
J. J. Haley	36.00
C. H. Hanson & Co.	6.00
M. J. Kimball	29.00
Lull & Hartford	3.50
Marshall & Crosby Co.	184.00
J. S. Mason Co.	18.60
G. W. McElroy ....	.65
Middlesex County	1.00
G. A. Nelson	1.20
Ottawa Silica Co.	2.10
Pawtucketville Cash Grocery	1.00
A. G. Pollard Co.	7.50
Louis D. Richardson	2.25
Sawyer Carriage Co.	27.35
E. E. Smith ....	.70
Geo. H. Taylor	1.00
Tucke & Parker Co. ....	.50

 448.37

 13,701.66

Returned to General Treasury Fund

347.55

 \$14,049.21

STREET DEPARTMENT

Salaries

Appropriation	4,045.95	
		<u>4,045.95</u>

Expended

Charles J. Morse, Superintendent	32.88	
N. F. Putnam, Superintendent	1,967.12	
Geo. W. Hartwell, Assist. Superintendent	1,400.02	
Clarence H. Raymond, Clerk	600.16	
		<u>4,000.18</u>
Returned to General Treasury Fund		45.77
		<u>4,045.95</u>

Wages

Appropriation	110,458.94	
		<u>110,458.94</u>

Expended

For Labor:—		
To Sundry Persons	110,458.94	
		<u>110,458.94</u>

Other Expenses

Appropriation	53,527.20	
		<u>53,527.20</u>

Expended

For Paints, Oils, etc.:—		
Adams H. & P. Co.	5.10	
F. G. Baldwin	21.78	
Bartlett & Dow	1.28	
J. C. Bennett	25.70	
Borne Scrymser Co.	17.50	
C. B. Coburn Co.	428.76	
The Connell Co.	26.50	
C. E. Guthrie & Son	13.30	
N. D. Lafleur	1.30	
Lowell Waste Co.	19.98	
		<u>561.20</u>

Street Department—Continued**For Gravel, Stone, Cement, Fuel, etc.:—**

Edward Cawley	268.17
J. L. Douglass & Co.	213.53
H. E. Fletcher & Co.	134.74
Horne Coal Co.	192.81
Michael Lynch	16.50
Mahan & Meehan	1.80
F. A. Malorey	1,740.88
Middlesex Granite Co.	189.55
Fred H. Rourke	7.50
E. A. & A. T. Smith	6,125.01
Staples Bros. Co.	65.30
Jas. Walsh & Son	681.24
E. A. Wilson & Co.	1,034.18

10,671.21

For Express, Transportation, etc.:—

American Express Co.	6.44
B. & M. R. R.	560.73
Lowell Taxicab Co.	21.00
Manchester & Concord Express Co.	2.45
C. K. Miller	20.25
N. Y. & B. Despatch Express Co.	3.80
N. Y. N. H. & H. R. R.	45.21
H. W. O'Brien	7.15
J. H. Sparks	29.40

696.43

For Veterinary:—

C. A. Hamblett	90.50
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90.50

For Water, Lighting and Telephone:—

App. Water Works	226.27
Lowell Electric Light Corp.	351.71
Lowell Gas Light Co.	71.79
N. E. T. & T. Co.	30.33

680.10

For Stationery, Printing, etc.:—

Buckland Printing Co.	20.00
Butterfield Printing Co.	49.25
Courier-Citizen Co.	276.00
Dumas & Co.	74.12
C. I. Hood Co.	14.00

Street Department—Continued

For Stationery, Printing, etc.:—Continued

H. C. Kittredge	14.85
G. C. Prince & Son	39.25
Riley & Sanborn	3.00
Chas. E. Robinson	22.00
Sampson & Murdock Co.	6.00
Smith Premier Typewriter Co.	71.00
Union Printing Co.	16.25

605.72

For Hay, Grain, etc.:—

Joseph Bowers	254.54
J. B. Cover & Co.	1,816.57
G. M. Foster	517.98
Est. Fred A. Fox	32.76
T. J. McDonald	796.26
Joseph Mullin	4,093.36
H. E. Noyes & Son	4,282.51
G. W. Parker	560.67
Pawtucketville Cash Grocery	169.58
Sabre Bros.	197.97
Paul Vigeant	262.71
O. D. Wilder	42.00
Wilder & Wotton	3,557.42

16,584.33

For Carriages, Harnesses and Repairs:—

Geo. F. Allen	55.00
T. H. Brassard	6.50
A. H. Cluer	36.15
Donovan Harness Co.	277.23
C. H. Hanson & Co.	147.50
F. B. Hill & Co.	95.15
Jos. McDonald	10.80
Geo. W. McElroy	66.15
D. W. Parker	133.16
Parker Harness Co.	78.70
J. L. & H. K. Potter	2.80
A. Roy	20.65
D. J. Ryan	87.00
Salois & Leith	33.90
Sawyer Carriage Co.	60.30
J. H. Sparks	8.50
H. Thompson	8.00

1,127.49

Street Department—Continued

For Teaming :—

John Brady	40.00
P. Cogger	207.50
P. Connell	6.00
Chas. Daggett	30.00
Geo. Fall	268.75
M. S. Feindel	10.00
E. Gordon & Co.	12.50
C. H. Hanson & Co.	638.00
Chas. Horan	8.00
Horne Coal Co.	197.50
T. G. Little	227.50
Joseph Mullin	135.00
D. A. Reardon	102.50
F. H. Rourke	146.25
John P. Quinn	88.75
J. J. Smith	194.25
D. T. Sullivan	60.00
H. W. Tarbell	371.95
Thomas Vaughn	120.00
H. T. Wheeler	185.00

 3,049.45

For Lumber :—

Burnham & Davis Lumber Co.	1,533.21
Davis & Sargent Lumber Co.	878.20
C. M. Holmes	45.75
Amasa Pratt Co.	162.34
Pratt & Forrest	89.59
J. A. & E. A. Simpson	202.88

 2,911.97

For Hardware, Tools, etc. :—

Adams H. & P. Co.	62.42
American Broom Co.	13.75
H. R. Barker Mfg. Co.	67.38
W. T. S. Bartlett	18.40
J. C. Bennett	157.01
Bartlett & Dow	23.50
H. L. Bond Co.	183.47
Boston Engineers Supply Co.	920.36
Boutwell Bros.	985.65
Buffalo Steam Roller Co.	556.25
Butts & Ordway Co.	20.37
Challenge Tube Cleaner Co.	4.00

Street Department—Continued

For Hardware, Tools, etc.:—Continued

Cheney & Thomson Co.	193.96
C. B. Coburn Co.	96.44
Co-operative File Co.	5.50
John A. Cotter ....	.55
F. W. Cragin & Co.	4.25
Derby & Morse	52.71
Farrell & Conaton ....	.89
M. S. Feindel	7.50
Joseph Fernley	36.95
Chas. E. Gee	38.28
Good Roads Machinery Co.	1125.91
H. C. Girard Co.	108.50
C. E. Guthrie & Son	64.90
Greendale Gas Engine Co.	30.50
Hassam Paving Co.	344.05
Geo. W. Hartwell	1.50
C. F. Hoisington & Son	61.75
N. D. Lafleur	102.17
W. A. Mack Co.	23.20
W. McElholm ....	.70
W. McLarney & Co.	3.28
Middlesex Machine Co.	52.68
Rice & Co.	32.40
Scannell Boiler Works	170.92
E. E. Smith	52.55
H. Thompson	293.92
Thompson Hardware Co.	103.25
Time Mfg.	8.75
Union Brass Foundry	8.47
Union Iron Foundry	6.94
Upton & Gilman	20.05
App. Water Works	7.50
H. E. Webster	7.28
H. H. Wilder	2.50
Chas. Wilmott	18.75
H. H. Wilson	4.00

 6,105.81

For Sundries:—

Adams & Co.	46.39
Mary J. Allen	150.00
Jas. Barry ....	.25
F. M. Bill & Co.	18.24
M. Brown ....	.15
Edward Cawley	36.17

Street Department—Continued

For Sundries:—Continued

Cancos Mfg. Co.	6.00
Paul Charbonneau .....	.25
A. A. Clark	6.00
Henry M. Clark	5.05
Chin Lee Co.	4.30
C. B. Coburn Co.	45.47
Cook, Taylor Co.	11.95
Matthias F. Connor	54.09
Cross Awning & Sign Co.	6.00
John Couture	10.50
G. F. Dodge & B. Nickelson	5.00
W. E. Dodge	4.10
J. A. Evans	10.95
Helen E. Estabrook	100.00
Samuel Fleming	5.10
Jos. Fernley	6.00
A. F. Frost	77.58
D. Gage	109.89
Eliz. Gannon	400.00
Alphonse Gaudette	18.00
C. H. Hanson & Co.	27.50
W. E. Hatch	60.00
Mary A. Hayes	100.00
C. M. Holmes .....	.50
C. I. Hood Co.	35.00
G. E. Hutchins	2.70
W. A. Ingham	3.80
Keefe Bros.	2.75
Catherine Kelley	100.00
Kelty Bros.	4.50
Chas. D. Kent	10.00
A. L. Kittredge	38.30
Rebecca Kennedy	50.00
L. S. Kimball	19.80
Locks & Canals Co.	1.92
Lowell Waste Co.	20.49
J. H. Marsh	11.06
Alice McCormick	100.00
T. J. McDonald	10.40
A. A. McNabb	2.00
F. E. McNabb	24.40
John McPhail .....	.25
Middlesex Leather Co. ....	.60
Middlesex Registry of Deeds	16.60
Hector Monette .....	.25

Street Department—Continued

For Sundries, etc.:—Continued

John Mountford	6.50
Jas. Murkland & Son	43.82
Jos. Mullin	8.78
John and Agnes Mullin	10.00
N. G. Norcross	40.00
O'Sullivan Bros. Co.	1.50
Pawtucketville Cash Grocery	48.00
A. G. Pollard Co.	8.42
Newell F. Putnam	1.90
Richardson Hotel	5.00
Sartwell, Herriold & Humphrey	3.50
Isabella Scollin	35.00
Frank Shaw	50.00
W. A. Sherman	13.50
C. L. Smith	14.70
Smith & Dore Mfg. Co.	2.72
Spencer & Co.	5.76
J. J. Sullivan .....	.65
Taylor Roofing Co.	10.50
The Gilbride Co.	12.29
H. Thompson	17.10
H. L. Timmons & Co.	15.75
Waverly Hotel	11.10
H. E. Webster	287.50
E. J. Welch	50.00
Chas. Wilmot	22.50
Wong & Co.	15.00
Emory T. Wright	15.75
App. Auditor O. E.	10.00
App. Engineering	3,056.13
App. Sewer Maintenance, Wages	1,008.00

6,611.62

49,695.83

Returned to General Treasury Fund

3,831.37

\$53,527.20

LIGHTING

Appropriation	98,000.00
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98,000.00

Lighting—Continued**Expended**

For Lighting Streets:—

Lowell Electric Light Corp.	67,029.74
Lowell Gas Light Co.	30,378.74

97,408.48

For Lighting Public Buildings:—

Lowell Gas Light Co.	30.44
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30.44

For Corp. Street Lights:—

Lowell Gas Light Co.	134.26
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134.26

For Sundries:—

Buckland Printing Co.	25.00
O. P. Davis	2.00
Lambert Printing Co.	9.00
Lowell Gas Light Co.	12.47
G. C. Prince & Son	13.60
E. A. & A. T. Smith	1.50
J. H. Sparks	6.00

69.57

97,642.75

Returned to General Treasury Fund

357.35

\$98,000.00

STREET WATERING**Wages**

Appropriation	4,200.40
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4,200.40

Expended

For Labor:—

To Sundry Persons	4,196.54
Returned to General Treasury Fund	357.25

4,200.40

Street Watering—Continued

Other Expenses

Appropriation	13,212.13	
		<u>13,212.13</u>

Expended

App. Water Works	1,519.38	
App. Engineering	167.59	
App. Streets, Wages	629.86	
App Streets, Other Expenses	2,075.32	
Adams H. & P. Co.	2.55	
American Car Sprinkler Co.	7,626.67	
Geo. T. Atchison	1.00	
Baker Printing Co.	6.25	
H. R. Barker Mfg. Co.	52.95	
Sylvester Bean	7.60	
Boutwell Bros. ....	.57	
C. B. Coburn Co.	20.63	
Jos. Fernley	4.00	
Lowell Electric Light Co.	38.67	
J. L. & H. K. Potter	1,059.09	
		<u>\$13,212.13</u>

NEW SIDEWALKS

Appropriation	5,770.81	
		<u>5,770.81</u>

Expended

For Labor:—

To Sundry Persons	2,014.20
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2,014.20

For Sundries:—

E. Bibeault	34.96
B. & M. R. R.	118.92
P. Carkins	666.06
J. L. Douglass & Co.	180.59

New Sidewalks—Continued

For Sundries:—

F. A. Malorey	2,010.71
Middlesex Granite Co.	248.49
E. A. & A. T. Smith	175.11
Jas. Walsh & Son	134.09
E. A. Wilson & Co.	187.68

 3,756.61

 5,770.81
GRADE CROSSINGS

Balance January 1, 1909	651.27
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 651.27
Expended

App. Engineering	16.15
J. Gilbert Hill	170.23
N. E. T. & T. Co.30
F. E. Rollins	185.92

 372.60

Returned to General Treasury Fund	278.67
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 651.27
CARE OF TREES

Appropriation	1,000.00
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 1,000.00
Expended

For Labor:—

To Sundry Persons	743.61
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 743.61

Care of Trees—Continued

For Sundries:—

Bartlett & Dow	7.65
J. C. Bennett	40.29
Burnham & Davis Lumber Co.	6.86
E. P. Bryant	55.09
C. B. Coburn Co.	25.20
Fred. C. Church	50.00
H. L. Gonzales	12.00
C. H. Hanson & Co.	3.00
C. N. Rice	1.30
Sherburne & Co.	9.00

210.39

Returned to General Treasury Fund

954.00

46.00

1,000.00

MOTH EXTERMINATION

Appropriation	5,728.97
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5,728.97

Expended

For Labor:—

To Sundry Persons	5,359.56
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5,359.56

For Hardware, etc.:—

Bartlett & Dow	36.76
J. C. Bennett	6.00
Boutwell Bros.	3.88
C. B. Coburn Co.	26.40

73.04

For Stationery, Printing, etc.:—

Dumas & Co.	37.61
Wright & Potter Printing Co.	9.50

47.11

Moth Extermination—Continued

For Use of Horses, Teaming, etc. :—

C. H. Hanson & Co.	25.00
Geo. A. Hardy	16.00

41.00

For Sundries :—

American Express Co. ....	.35
J. C. Bennett	3.20
B. & M. R. R. ....	.63
C. B. Coburn Co.	14.31
F. C. Church	31.46
C. H. Hanson & Co.	11.50
Geo. E. Hutchins .....	.30
D. F. Munroe & Co.	58.17
N. E. T. & T. Co. ....	.72
Pratt & Forrest	13.32
Talbot D. & C. Co.	66.00
Tucke & Parker Co.	1.50
Chas. A. Whittet	1.80
H. H. Wilder & Co.	5.00

208.26

5,728.97

MOTHS IN FLIGHT

Appropriation	500.00
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500.00

Expended

For Labor :—

To Sundry Persons	306.40
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306.40

For Sundries :—

App. Moths	28.97
American Express Co.66
H. R. Barker Mfg. Co.80
Arthur Bartlett	37.75
F. M. Bill & Co.	7.50
C. B. Coburn Co.	4.15

Moths In Flight—Continued

For Sundries:—

Davis Printing Co.	8.00
Knox & Morse Co.	10.00
Lowell Automobile Co.	2.70
Lowell Electric Light Corp.	8.26
N. Y. & B. Despatch Express Co. ....	.45
N. E. T. & T. Co. ....	.40
G. C. Prince & Son	44.96
Talbot D. & C. Co.	39.00

 193.60

 500.00

PAINTING MOODY ST. BRIDGE

Balance January 1, 1909	924.35
Receipts	4.50

 928.85

Expended

For Labor:—

To Sundry Persons	645.35
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 645.35

For Sundries:—

F. G. Baldwin	12.80
Burnham & Davis Lumber Co.	11.52
Cheney & Thomson Co.	2.25
C. B. Coburn Co.	164.35
C. E. Guthrie	13.40
A. L. Kittredge & Co.	1.80
N. G. Norcross	50.00
E. E. Smith	9.80

 265.92

 911.27

Returned to General Treasury Fund

 17.58

 928.85

MACADAMIZING FOSTER AND OTHER STREETS

Balance January 1, 1909	3,519.26	
		<u>3,519.26</u>
Expended		
For Labor:—		
To Sundry Persons	1,227.38	
		<u>1,227.28</u>
For Sundries:—		
App. Engineering	45.63	
A. D. Carter	100.00	
W. G. Gardner	3.00	
W. E. Hatch	8.85	
		<u>157.48</u>
		<u>1,384.76</u>
Returned to General Treasury Fund		2,134.50
		<u>3,519.26</u>

STATE HIGHWAY TAX

Appropriation	132.65	
		<u>132.65</u>
Expended		
Com. of Mass.	132.65	
		<u>132.65</u>

**PAVING PORTIONS OF MERRIMACK SQUARE
BRIDGE ST., MERRIMACK ST., MIDDLESEX ST.**

Appropriation	64,024.32	
		<u>64,024.32</u>
Expended		
For Labor:—		
To Sundry Persons	16,271.73	
		<u>16,271.73</u>

**Paving Portions of Merrimack Square, Bridge Street,
Merrimack Street, Middlesex Street—Continued**

For Advertising:—

Courier-Citizen Co.	16.20
Lowell Sun	18.60
Lowell Telegram	4.80
L'Etoile	6.30

45.90

For Hardware, Fittings, etc.:—

Boston Engineers Supply Co.	236.00
Derby & Morse	5.64
Chas. E. Gee	3.25
C. F. Hoisington	7.20
W. A. Mack Co.	16.50
Middlesex Machine Co.	7.64
Thompson Hardware Co. ....	.85

277.08

For Stone, Cement, etc.:—

H. E. Fletcher	17,696.50
Hassam Paving Co.	1,652.65
Mass. Broken Stone Co.	56.84
E. A. & A. T. Smith	1,195.13
Staples Bros.	241.50
D. T. Sullivan	3,671.53

24,514.15

For Sundries:—

App. Engineering	689.50
App. Sewer Maint. O. E.	806.16
App. Sewer Maint., Wages	77.99
App. Streets O. E.	10,870.01
App. Water Works	167.58
B. & M. R. R.	1,538.90
C. B. Coburn Co.	11.83
Cross Awning Co.	60.00
Edward T. Cushing	1.26
Timothy Larkin	42.60

14,265.83

Returned to General Treasury Fund	55,374.69
Balance to 1910	6,000.00

2,649.63

64,024.32

REPAIRS TO BOULEVARD AND VARNUM AVENUE

Appropriation	6,500.00	
	<u> </u>	
		6,500.00
		<u> </u>

Expended

Sundry Persons, Wages	4,470.27	
C. B. Coburn Co.	2,029.73	
	<u> </u>	
		6,500.00
		<u> </u>

REPAIRING CABOT ST. BRIDGE

Appropriation	2,900.00	
	<u> </u>	
		2,900.00
		<u> </u>

Expended

For Labor:—

To Sundry Persons	734.63	
	<u> </u>	
		734.63

For Sundries:—

App. Engineering	72.86	
Boutwell Bros.	1.59	
Burnham & Davis Lumber Co.	1,429.38	
H. E. Fletcher Co.	117.71	
E. E. Smith	19.30	
E. A. & A. T. Smith	104.04	
E. A. Wilson & Co.	51.62	
	<u> </u>	
		1,796.50
		<u> </u>

		2,531.13
Returned to General Treasury Fund		368.87
		<u> </u>
		2,900.00

CHARITIES AND CORRECTIONS—9

Charity Department, Hospital; Charity Department, Outdoor Relief.

CHARITY DEPARTMENT

Appropriation	76,404.95	
		76,404.95

Expended Out Door Relief

For Salaries:—

M. J. Courtney, Supt.	150.22	
S. S. Mayberry, Supt.	1,833.32	
Sundry Persons, Clerk Hire and Wages	5,085.00	
		7,068.54

Cash Allowances:—

Sundry Persons	2,252.55	
		2,252.55

Office Supplies and Transportation:—

American Express Co. ....	.40	
Baker Printing Co.	84.80	
Boston & Maine R. R. ....	.64	
Buckland Printing Co.	24.50	
Butterfield Printing Co.	7.00	
Carter's Ink Co. ....	.38	
Dumas & Co.	12.50	
H. C. Kittredge .....	.75	
Thomas H. Lawler	13.50	
Manchester & Concord Express Co. ....	.70	
S. S. Mayberry	5.00	
C. K. Miller	52.23	
N. E. T. & T. Co.	35.38	
G. C. Prince & Son	31.98	
Sampson & Murdock Co.	9.00	

Charity Department—Continued

Office Supplies and Transportation:—Continued

J. H. Sparks	5.45
Tobin's Printery	3.90
Union Printing Co.	5.50
W. U. Tel. Co.	1.20

294.86

For Dispensary Supplies:—

F. & E. Bailey & Co.	102.30
Frank J. Campbell	11.75
C. E. Carter & Co.	28.50
Clinton Mfg. Co.	48.00
C. B. Coburn Co.	4.87
P. Dempsey & Co.	123.93
Falls & Burkinshaw	225.15
Frye & Crawford Drug Co.	5.00
W. H. Ingham Co.	17.27
J. B. A. Johnson	66.25
R. J. Lang & Co.	3.15
T. Lennon & Co.	87.60
Fred O. Lewis	84.80
E. A. McQuade	222.66
J. H. O'Neil	64.00
Horace E. Page	98.17
C. L. Smith	56.18
H. L. Timmons & Co.	223.15

1,472.73

For Physicians:—

S. D. Bellehumeur	150.00
P. Brunelle	272.00
A. E. Gillard	221.00
T. J. Halloran	200.00
A. J. Halpin	285.00
G. O. Lavallee	50.00
J. E. Leary	212.00

1,390.00

Commonwealth:—

Com. of Mass.	520.36
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520.36

Charity Department—Continued

For Interments:—

Joseph Albert	55.00
Amedee Archambault	24.00
N. Bilodeau	22.00
A. H. Bixby & Co.	8.00
J. B. Currier & Co.	3.00
Peter Davey	3.00
Horace Ela & Co.	2.00
J. A. Finnegan & Co.	6.00
G. W. Healey	5.00
Higgins Bros.	5.00
M. H. McDonough & Co.	15.00
C. H. Molloy	67.00
J. J. O'Connell & Co.	2.00
J. F. O'Donnell & Sons	35.00
J. F. Rogers	6.00
J. A. Weinbeck	2.00
C. M. Young & Co.	6.00

 266.00

For Support out of Almshouse:—

Cities and Towns:—

City of Boston	986.42
Cambridge	31.86
Fall River	47.90
Haverhill	452.40
Holyoke	116.50
Lawrence	348.25
Lynn	185.85
Melrose	28.00
New Bedford	21.51
Pittsfield	15.70
Salem	172.50
Somerville	38.97
Springfield	63.05
Waltham	61.63
Woburn	29.48
Town of Andover	54.00
Chelmsford	52.09
Clinton	68.00
Douglass	14.53
Lancaster	49.79
Peabody	24.87
Pepperell	41.00

Charity Department—Continued

For Support out of Almshouse:—Continued

Town of Sturbridge	154.10
Wakefield	7.60
Westford	35.50
Weymouth	244.96

3,346.46

For Hospitals and Institutions:—

Children's Hospital	20.70
Foxborough State Hospital	247.29
French American Orphanage	388.40
Hospital Cottages for Children	338.90
House of the Angel Guardian, Boston	774.15
Lawrence Orphan Asylum	194.54
Lowell Hospital Association	24.57
Mass. Hospital School	459.63
Mass. School for the Blind	33.77
Monson State Hospital	82.64
St. John's Hospital	1,901.68
St. Peter's Orphan Asylum	1,044.00
Westborough Insane Hospital	88.68
Worcester Insane Hospital	48.75
Worcester State Hospital	42.71

5,690.41

For Fuel—Wood Yard:—

John Brady	70.22
Amasa A. Brown	321.29
Edward Cawley	331.20

722.71

For Sundries—Wood Yard:—

J. A. Boucher	5.80
Derby & Morse	4.60
G. M. Foster	28.26
H. C. Girard Co. ....	.30
H. L. Gonzales	3.00
Lowell Electric Light Corp.	57.60
T. J. McDonald	13.17
Geo. R. Morse	1.00
Morse & Sparks	1.00
Henry Reynolds	7.90
Paul Vigeant & Co.	263.50
Wilder & Wotton	17.12

403.25

Charity Department—Continued

Ambulance:—

J. H. Sparks, Ambulance Service	2,092.61
A. E. Shaw, Surgeon	400.00

2,492.61

For Sundries:—

App. Water Works	11.70
American Express Co. ....	.40
Bartlett & Dow	4.50
J. C. Bennett	1.50
F. M. Bill & Co.	36.11
M. J. Cahill	4.90
O. J. Carney & Co.	12.05
J. L. Chalifoux	4.97
Cook, Taylor & Co.	13.58
Derby & Morse	1.50
Donovan Harness Co. ....	.90
G. M. Foster	51.12
Frye & Crawford Drug Co.	1.25
F. B. Hill & Co.	15.50
Geo. E. Hutchins	3.25
J. F. Kelty	10.45
Fred O. Lewis	24.65
Lowell Electric Light Corp.	24.57
Lowell Gas Light Co.	7.47
S. S. Mayberry	2.00
Merrimack Clothing Co. ....	.75
Geo. R. Morse	3.75
Morse & Sparks	5.50
Geo. E. Mongeau	8.25
Chas. J. Mulholland	52.00
Jos. Mullin	61.50
H. E. Noyes & Son	12.69
O'Sullivan Bros. Co.	7.60
H. C. Peterson .....	.50
A. G. Pollard Co. ....	.80
Henry Reynolds	8.00
Salois & Leith	58.65
Sawyer Carriage Co.	133.80
C. L. Smith	180.17
J. H. Sparks .....	.70
Thompson Hardware Co.	1.75
Paul Vigeant & Co.	53.15
Wilder & Wotton	18.99

Charity Department—Continued

For Sundries:—

App. Auditor O. E.	6.00
App. Bldgs., Wages	256.00
App. Bldgs., O. E.	206.69

 \$1,309.61

 \$27,230.09

Lowell City Hospital and Almshouse

Expended

For Wages:—

To Sundry Persons	10,716.13
T. H. Smith, City Physician	700.00

 11,416.13

For Grain, Groceries and Provisions:—

Armour & Co.	109.32
F. S. Bean & Co.	791.63
F. M. Bill & Co.	2,911.58
W. Booth Co.	176.81
Boston Fish Market	275.00
Borden's Condensed Milk Co.	7.50
Boyle Bros.	2.70
G. J. & D. Bradt	129.00
Jas. H. Buckley	368.25
T. H. Buckley	40.49
Calderwood & Robbins	76.00
Coffey Bros.	6.52
Elmer E. Cole	52.10
J. B. Cover & Co.	280.60
Dickson	219.50
D. J. Donovan	46.90
T. R. Fahey	1,530.98
T. J. Fitzgerald	76.00
Fleischmann & Co.	100.50
Geo. M. Foster.....	415.82
Friend Bros.	109.20
C. F. Garland	523.23
David Gerow	69.78
Grand Union Tea Co.	37.00
W. J. Hoare	263.18
R. H. Hynes	232.88

Charity Department—Continued

For Grain, Groceries, etc.:—Continued

Independent Beef and Provision Co.	62.43
David Ingham	14.50
W. A. Ingham Co.	278.03
Keefe Bros.	28.80
Livingston Grain Co.	84.19
Lyons Tea Co.	34.00
A. L. Macrae	668.78
T. J. McDonald	162.25
T. F. McKay	79.25
Joseph Mullin	362.07
F. D. Munn & Son	2.75
H. E. Noyes & Son	560.58
Nichols & Co.	169.65
Omaha Packing Co.	3,773.98
Pawtucketville Cash Grocery	1,220.45
G. E. Putnam & Son	567.54
A. P. Robertson	31.00
John F. Saunders	47.40
Samuel Scott	296.75
C. L. Smith	5,139.69
Sylvanus Smith & Co.	82.50
Swift & Bailey	701.97
Swift & Co.	117.30
F. A. Tuttle	8.55
Vermont Mfg. Co.	772.80
John Vlahos	8.50
Wilder & Wotton	393.54
C. H. Wing	119.87

24,641.59

For Painters and Electricians Supplies:—

Adams H. & P. Co.	52.90
F. G. Baldwin	27.50
W. T. S. Bartlett	30.68
J. C. Bennett	7.05
C. B. Coburn Co.	220.86
N. D. Lafleur .....	.75
W. W. Morrison	7.50

347.24

For Drugs, Medicines, etc.:—

Frank J. Campbell	34.50
Clinton Mfg. Co.	21.60
C. B. Coburn Co.	10.82

Charity Department—Continued

For Drugs, Medicines, etc.:—Continued

Columbian Insecticide Co.	135.00
Ellingwood & Co.	1.75
Frye & Crawford	28.95
J. B. A. Johnson	11.50
Fred O. Lewis	18.25
Talbot D. & C. Co.	117.86
H. L. Timmons & Co.	27.69

 407.92

For Clothing, etc.:—

Max Carp & Co.	9.80
J. L. Chalifoux	180.69
Cook, Taylor & Co.	397.40
P. J. Custy & Co.	13.75
J. A. Desrosiers & Co.	273.50
Gilbride Co.	205.79
Grant & Co.	18.26
Lowell One Price Clothing Co.	91.00
Mass. Reformatory	488.64
Mass. State Prison	486.00
Geo. E. Mongeau	67.55
L. A. Normandin	167.00
A. G. Pollard Co.	198.13
Sunlight Shoe Store	31.27
Talbot Clothing Co.	135.00
The Robertson Co.	75.95

 2,875.73

For Express, Transportation, etc.:—

American Express Co.	1.25
Boston & Maine R. R.	3.02
Manchester & Concord Express Co. ....	.15
N. Y. & B. Despatch Express Co.	2.05
N. Y. N. H. & H. R. R.	52.00

 58.47

For Carriages, Harnesses and Repairs:—

Robert Barris	10.80
E. P. Bryant	19.85
Donovan Harness Co.	45.15
F. B. Hill & Co.	103.45
G. W. McElroy	2.85

Charity Department—Continued

For Carriages, Harnesses and Repairs:—Continued

D. W. Parker	27.00
Sawyer Carriage Co.	1.30
J. H. Sparks	7.55

217.95

For Shoeing Horses:—

D. Bellerose	6.00
O. J. Carney & Co.	4.00
J. J. Donnelly	36.40
A. D. Mitten	10.45
Morse & Sparks	28.20
George R. Morse	32.00
Henry Reynolds	44.75
Salois & Leith	38.50

200.30

For Fuel, Cement, etc.:—

Edward Cawley	36.60
D. T. Sullivan	8.40
E. A. Wilson & Co.	3,815.29

3,860.29

For Stationery, Printing, etc.:—

Baker Printing Co.	22.80
Butterfield Printing Co.	14.90
Carter's Ink Co. ....	.76
Courier-Citizen Co.	3.00
H. C. Kittredge	1.00
T. H. Lawler	1.00
G. C. Prince & Son	41.95
Sampson & Murdock Co.	3.00

88.41

For Water, Lighting and Telephone:—

App. Water Works	1,094.92
Lowell Electric Light Corp.	395.87
Lowell Gas Light Co.	693.56
N. E. T. & T. Co.	19.43
Postal Telegraph Co. ....	.25
Western Union Telegraph Co. ....	.33

2,204.36

Charity Department—Continued

For Hardware, Fittings, etc. :—

App. Water Works	8.95
Adams H. & P. Co.	57.00
F. G. Baldwin	7.45
H. R. Barker Mfg. Co.	107.64
Bartlett & Dow	38.36
J. C. Bennett	62.50
Boutwell Bros.	40.54
O. E. Brennan	5.69
Challenge Tube Cleaner Co.	3.00
Cheney & Thomson Co.	96.20
C. B. Coburn Co.	69.41
Chas. E. Gee	1.00
C. E. Guthrie & Son	7.84
John Kelley	37.50
N. D. Lafleur	8.56
W. A. Mack Co.	15.00
W. H. McElholm	30.00
Scannell Boiler Works	33.12
E. E. Smith	41.35
Thompson Hardware Co.	40.15
J. S. Turner Mfg. Co. ....	.94
Welch Bros.	70.60
H. H. Wilder & Co.	6.50
D. H. Wilson & Co.	9.60

798.90

For Sundries :—

App. Water Works	22.00
Adams H. & P. Co.	1.74
Audette Bros.	4.20
A. W. Baker	6.00
M. A. Bean	31.00
Burnham & Davis Lumber Co.	3.32
A. H. Burnham	36.85
C. B. Coburn Co.	104.44
E. E. Cole	23.05
Collins	4.50
F. P. Crawford & Co.	2.70
Chas. Daggett	48.36
Davis & Sargent Lumber Co.	49.33
Derby & Morse	6.04
S. Fagan	7.30
F. J. Flemings	14.36
Foye Bros.	80.80
Frye & Crawford	16.75

Charity Department—Continued

For Sundries :—Continued

Daniel Gage	641.28
Archibald R. Gardner	4.00
J. F. Gear	1.88
A. G. Halpin	10.00
C. F. Hatch Co.	9.55
W. E. Hatch .....	.85
Robert Hendey .....	.50
G. E. Hutchins	1.45
David Ingham	3.00
C. H. Johnson	6.00
J. B. A. Johnson	1.00
J. F. Kely	1.05
A. L. Kittredge & Co.	9.00
M. A. Long	4.00
Lowell Military Band	50.00
Lowell Waste Co.	1.00
Lull & Hartford	7.05
Mrs. Manning	10.00
P. H. McCarthy	3.00
Geo. McDonald	2.10
T. J. McDonald	5.00
Middlesex Leather Co.	66.81
W. W. Morrison	7.50
Chas. E. Munn	2.00
Harry M. Parker	8.00
C. E. Perham	12.29
K. M. Perham	11.75
Thos. Powers	5.00
Thos. F. Powers	9.00
Amasa Pratt Co.	9.26
Pratt & Forrest	10.18
Richardson Mfg. Co.	5.33
Robertson Co.	66.75
W. A. Sherman	3.00
E. E. Smith	3.45
Town of Chelmsford	39.85
Western Union Telegraph Co. ....	.58
Henry F. Whiting	2.46
Whitman & Pratt Rendering Co.	97.24
E. A. Wilson & Co.	22.54
M. C. Wilson	10.00
App. Health Yard O. E.	427.52
App. Sealer O. E.	2.61
	<hr/>
	2,057.57
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	49,174.86
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Total Expenditure	\$76,404.95

EDUCATION—10

Schools, Supervision, Salaries and Wages; School Teachers, Day, Salaries; School Teachers, Night, Salaries; School Janitors; School Fuel, etc.; School Books, and other Expenses; School Houses; Carpenters, Painters and other Wages; New Highland School; High School Annex Boilers; New Bartlett School Grading; Greenhalge School Improvements; Textile School; School House Improvements; Lincoln St. School Repairs; Sycamore St. Flag Pole.

SCHOOL DEPARTMENT

Supervision

Salaries and Wages

Appropriation	8,180.07	
		8,180.07

Expended

A. K. Whitcomb, Supt.	3,000.00	
Truant Officers and Clerk Hire	5,180.07	
		8,180.07

Day Teachers

Appropriation	256,000.00	
		256,000.00

Expended

To Sundry Persons, Teachers	255,160.44	
Returned to General Treasury Fund	839.56	
		256,000.00

Evening Teachers

Appropriation	20,918.75	
		20,918.75

School Department—Continued**Expended**

To Sundry Persons, Teachers	20,918.75	
		<u>20,918.75</u>

Janitors

Appropriation	43,929.16	
		<u>43,929.16</u>

Expended

To Sundry Persons, Janitors	43,929.16	
		<u>43,929.16</u>

Fuel, Lighting, Water, etc.

Appropriation	25,500.00	
		<u>25,500.00</u>

Expended

John Brady	118.00
J. T. Brennan	116.75
Edward Cawley	12,580.51
W. T. Griffin	201.50
W. H. Harvey & Co.	31.25
Horne Coal Co.	21.00
A. A. Jones	4.00
Geo. Lynch.....	112.63
Joseph Mullin	7.50
Geo. Paquette	6.50
J. P. Quinn	21.00
E. A. Wilson & Co.	6,219.93
App. Water Works	1,004.09
Lowell Gas Light Co.	1,173.08
Lowell Electric Light Corp.	2,809.81

	<u>24,427.55</u>
Returned to General Treasury Fund.....	1,072.45
	<u>25,500.00</u>

School Department—Continued

Books and Other Expenses

Appropriation	26,163.54	
		26,163.54
Expended		
For Physicians:—		
To Sundry Persons	1,440.00	
		1,440.00
For Carriages, Harnesses and Repairs:—		
A. H. Cluer	75.00	
F. B. Hill & Co.	35.10	
D. W. Parker	5.60	
Sawyer Carriage Co.	55.35	
J. H. Sparks	13.70	
		184.75
For Shoeing and Board of Horses		
J. J. Donnelly	49.75	
J. H. Sparks	600.20	
		649.95
For Electrical Supplies:—		
A. W. S. Davis	29.05	
Derby & Morse	8.30	
H. F. Harding	8.27	
M. E. Hobson	73.50	
N. E. Electric & Supply Corp.	58.24	
Tucke & Parker Co.	243.98	
Charles Zueblin	75.00	
		496.34
For Laboratory Supplies:—		
Otis Allen & Son	5.00	
Bausch & Lomb Optical Co.	18.10	
L. E. Knott Apparatus Co.	76.75	
Talbot D. & C. Co.	30.33	
Taylor Bros. Co.	4.25	
F. H. Thomas & Co.	9.00	
		143.43
For Express, Transportation, etc.:—		
American Express Co.	35.45	
B. & M. R. R.	2.01	
B. & N. St. Railway	375.00	
Hill Transfer Co.	24.75	

School Department—Continued

For Express, Transportation, etc.:—

Manchester & Concord Express Co.	28.70
N. Y. & B. Despatch Express Co.	4.66
J. H. Sparks	9.00

479.57

For Furniture, Repairs, Cloth, etc.:—

Adams & Co.	108.15
F. G. Baldwin	80.30
W. Cadoret & Co.	45.00
Cook, Taylor & Co.	36.88
J. J. Doherty	9.00
Gilbride Co.	1.47
M. F. Gookin Co.	126.50
Grant & Co.	6.96
T. Hannafin	3.00
P. Z. Hebert	41.00
Mass. Com. for the Blind	11.20
O'Donnell Dry Goods Co.	49.00
A. G. Pollard Co.	157.74
The Robertson Co.	7.45
Jas. Stanley	67.05
Est. W. H. Worcester	8.00

758.70

For Music and Musical Supplies:—

American Orchestra	40.00
Irvin A. Foote	150.00
Louis J. Grunewald	19.19
Hibbard's Orchestra	52.00
A. Kershaw & Son	22.10
Lowell Cadet Band	100.00
Harriette S. Mansen	21.98
W. A. Owen	14.00
M. Steinert & Son	4.50

423.77

For Paints, Oils, etc.:—

F. G. Baldwin	24.90
J. C. Bennett	2.00
Cheney & Thomson Co.	16.75
C. B. Coburn Co.	27.13
Columbia Refining Co.	29.16

School Department—Continued

For Paints, Oils, etc.:—Continued

N. D. Lafleur .....	.77
Masury, Young Co.	21.50
Thompson Hardware Co.	8.30

130.51

For Hardware, etc.:—

Adams H. & P. Co.	18.25
F. G. Baldwin	7.25
W. T. S. Bartlett	145.50
J. C. Bennett	81.36
Boston Engineers' Supply Co.	36.00
Boutwell Bros.	19.70
O. E. Brennan	184.00
W. W. Carey Co.	3.25
Cheney & Thomson Co.	112.80
City Iron Foundry .....	.36
C. B. Coburn Co.	103.35
Geo. W. Fifield	150.00
H. C. Girard Co.	80.22
C. E. Guthrie & Son	5.30
C. F. Hoisington & Son	13.22
N. D. Lafleur	16.22
Lull & Hartford	29.25
W. A. Mack Co.	53.75
J. A. Moore	65.00
Pevey Foundry Co.	4.40
Smith & Lawrence	3.50
B. F. Sturtevant	93.16
Thompson Hardware Co.	62.47
Turner Mfg. Co.	2.25
W. E. Westall	34.39
Wm. Zimmer	100.70

1,425.65

For Stationery, Printing, etc.:—

Baker Printing Co.	190.50
Buckland Printing Co.	45.25
Butterfield Printing Co.	95.91
Carter's Ink Co. ....	.76
Courier-Citizen Co.	179.85
Elizabeth Clark	12.00
Davis Printing Co.	12.00
Dumas & Co.	230.35
Holden P. B. C. Co.	65.22

School Department—Continued

For Stationery, Printing, etc.:—Continued

C. I. Hood Co.	253.00
Thomas H. Lawler	409.15
Library Bureau	5.50
Osmond Long	96.25
Lowell Sun	13.50
A. D. Mack	71.95
W. M. L. McAdams	2.00
T. F. McCarthy	94.25
G. C. Prince & Son	4,265.42
Sampson & Murdock Co.	15.00
Schapirograph Co.	2.00
A. S. Thompson	136.50
Tobin's Printery	43.25
Underwood Typewriter Co.	1.15
Union Printing Co.	130.75
M. G. Wight & Co.	17.50

6,389.01

For Books:—

Allyn & Bacon	12.50
American Book Co.	789.43
D. Appleton & Co.	44.20
Atkins, Mentzer & Grover	3.40
E. E. Babb & Co.	1,823.48
A. S. Barnes & Co.	1.46
Oliver Ditson Co.	31.71
G. J. Esselen	2.40
Exeter Book Co.	3.00
Gregg Publishing Co.	24.50
Ginn & Co.	1,706.62
D. C. Heath & Co.	490.47
Hinds & Noble	4.41
Henry Holt & Co.	89.38
Houghton, Mifflin & Co.	17.00
J. P. Lippincott & Co.	1.62
Longmans Green & Co.	1.15
McMillan Co.	9.04
Chas. E. Merrill Co.	59.68
Rand McNally & Co.	15.80
B. H. Sanborn & Co.	509.78
Chas. Scribners Sons	76.92
Silver, Burdett & Co.	535.90
University of Chicago Press .....	.74

6,254.59

School Department—Continued

Evening Schools

Adams H. & P. Co.	8.48
American Book Co.	11.20
American Express Co.	1.28
E. E. Babb & Co.	41.48
Buckland Printing Co.	17.75
P. P. Caproni & Bro.	3.35
C. B. Coburn Co.	2.40
A. S. Colby	9.00
Courier-Citizen Co.	33.25
Edmunds & Hooper	4.50
Ginn & Co.	16.00
Gregg Publishing Co.	36.55
J. B. Lippincott & Co.	55.00
Lowell Machine Shop	2.10
B. L. Makepeace	91.90
T. F. McCarthy	12.25
Chas. E. Merrill Co.	30.05
Middlesex Orchestra	31.50
G. C. Prince & Son	81.85
Lilla E. Roche	12.50
F. A. M. Tobin's Printery	3.00
Tucke & Parker Co.	31.20
W. E. Westall	3.60
E. A. Wilson & Co.	2.25

542.44

For Sundries:—

Helen R. Abels	17.33
Armour & Co.	10.00
F. E. Bailey & Co. ....	.85
E. J. Bill	16.00
F. M. Bill & Co.	5.00
W. P. Brazer & Co.	3.20
Burnham & Davis Lumber Co.	13.32
Julius Cahn	100.00
Cancos Mfg. Co.	3.00
P. P. Caproni & Bro.	3.00
Central Scientific Co.	3.00
Chas. S. Chapin	75.00
J. J. Cluin	87.00
C. B. Coburn Co.	235.42
Cedric Collins	50.00
Cross Awning Co. ....	.75
Davis & Sargent Lumber Co.	42.39

School Department—Continued

For Sundries:—Continued

Thos. H. Elliott	50.00
Edmunds & Hooper	4.50
F. J. Flemings	684.20
John Flynn	125.00
Joseph Flynn	8.00
Foye Bros.	46.00
J. L. Hammett Co.	36.25
E. Hathaway .....	.50
M. E. Hobson	11.00
D. D. Howard Co.	15.00
G. E. Hutchins	284.12
M. L. Ingalls	22.00
Edward Judge	8.00
Kelty Bros. ....	.25
Kennedy Bros. & Watkins	36.00
S. Kershaw & Son	47.15
A. L. Kittredge & Co.	178.33
Knox & Morse Co.	45.50
D. Lovejoy & Son	2.70
Lowell Gas Light Co.	2.00
Robert Luce	25.00
Lull & Hartford	21.85
J. E. Lyle	18.00
A. D. Mack	3.00
P. A. MacKenzie	8.90
Mass. Com. for the Blind	17.60
William McElwain	3.85
J. J. McManmon	20.00
McNabb Bros.	7.68
Mdsx. Co. Truant School	3,234.95
Alex. Mireault	5.00
Mint of U. S.	1.58
N. E. T. & T. Co.	74.93
No Dust Mfg. Co.	7.50
O'Sullivan Bros. Co.	20.00
Pawtucketville Cash Grocery	10.00
David Perrault & Co.	8.45
Amasa Pratt Co.	34.10
Chas. R. Preston	4.75
R. E. Redding	7.50
Jas. A. Shanley	46.50
Smith-Premier Typewriter Co.	89.25
J. H. Sparks	6.00
Standard Chemical Co.	33.20
F. R. Strout	1.00

School Department—Continued**For Sundries:—Continued**

F. H. Thomas & Co.	9.00
J. S. Turner Co.	2.50
West Disinfectant Co.	50.00
W. E. Westall	1.25
A. C. Wheelock	216.00
A. K. Whitcomb	67.83
H. F. Whiting	6.96
E. A. Wilson & Co.	2.25
William Zimmer	25.70
App. Auditor, O. E.	17.80
App. School Hos., Wages	237.95
App. School Hos., O. E.	208.16
App. Buildings, O. E.	17.08

 6,844.83

 \$26,163.54
School Houses**Carpenters, Painters and Other Wages:—**

Appropriation	11,776.81
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 11,776.81
Expended

To Sundry Persons for Wages	10,452.30
Returned to General Treasury Fund	1,324.51

 11,776.81
Other Expenses

Appropriation	11,081.38
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 11,081.38
For Mason Work, Roofing, Plastering, etc.:—

W. H. Bamford	8.00
E. Bibeault	197.66
Jas. Burns & Son	66.65
M. J. Carroll	48.65
Edward Cawley	16.00
M. F. Connor	22.40
B. F. Crosby & Co.	11.39

School Houses—Continued

For Mason Work, Roofing, Plastering, etc.:—Continued

J. L. Douglass & Co.	39.65
C. F. George & Co.	160.15
Philip Ginty	408.35
W. J. Gould	3.50
J. L. Gordon	121.68
F. A. Malorey	48.00
Jas. F. Mooney	54.82
E. A. & A. T. Smith	170.20
D. T. Sullivan	124.30
Taylor Roofing Co.	2.00
Jas. Walsh & Son	123.52
S. H. Weaver & Co.	46.70
E. A. Wilson & Co.	35.78

1,709.40

For Paints, Oils, etc.:—

Adams H. & P. Co.	78.03
F. G. Baldwin	151.70
J. C. Bennett	154.57
Cheney & Thomson Co.	251.50
M. D. Clay	14.00
C. B. Coburn Co.	522.04
Connell Co.	15.00
Early Paint Co.	14.00
E. E. Smith	27.20
Talbot D. & C. Co. ....	.36

1,228.40

For Plumbing, Pipe, Fittings, etc.:—

App. Water Works	43.80
American Mason S. T. Co.	191.85
H. R. Barker Mfg. Co.	239.66
Boston Steam Specialty Co.	7.25
Carroll Bros.	26.75
Challenge Tube Cleaner Co.	6.35
Chamberlin Metal W. S. Co.	11.42
T. Costello & Co.	187.86
Daniel Cushing & Co.	21.27
J. D. Danahy	26.43
Farrell & Conaton	673.99
Fuller & Warren Co.	10.00
Gaffney & Kerwin	19.42
Chas. E. Gee ....	.90
John Kelley & Co.	12.00

School Houses—Continued

For Plumbing, Pipe, Fittings, etc.:—Continued

D. J. Leary	292.59
Lowell Furnace Co.	214.93
W. A. Mack Co.	424.87
Jos. C. McCarron & Co.	9.70
W. H. McElholm	22.61
Middlesex Machine Co.	18.45
J. J. Mullaney	319.89
D. W. Mullin & Co.	106.10
Rice & Co.	1.00
Scannell Boiler Works	270.59
Scott & O'Day Co.	450.57
J. S. Turner Mfg. Co.	4.00
P. F. Welch	473.03
Welch Bros.	66.24
H. H. Wilder	2.50
W. C. Wrigley & Co.	1.20

 4,157.22

For Lumber:—

Burnham & Davis Lumber Co.	854.11
Davis & Sargent Lumber Co.	346.56
Pratt & Forrest	28.42
Amasa Pratt Co.	612.66

 1,841.75

For Hardware, etc.:—

Adams H. & P. Co.	265.93
American Seating Co.	9.62
F. G. Baldwin	66.25
W. T. S. Bartlett	85.62
Bartlett & Dow	1.25
J. C. Bennett	125.82
Cheney & Thomson Co.	200.68
C. B. Coburn Co.	98.77
H. C. Girard Co.	9.55
C. E. Guthrie & Son	8.90
J. L. Hammett & Co.	3.66
J. Harvey & Co.	29.21
John Kelley & Co.	6.00
A. L. Kittredge & Co.	27.03
N. D. Lafleur	54.20
W. A. Mack Co.	125.27

School Houses—Continued

For Hardware, etc.:—Continued

Rice & Co.	6.19
E. E. Smith	24.90
Thompson Hardware Co.	13.01

 1,161.86

For Electrical Supplies:—

Derby & Morse	48.15
Harry F. Harding	19.90
J. F. McElholm	30.00
J. F. McMahon & Co.	15.66
Tucke & Parker Co.	37.50

 151.21

For Sundries:—

C. B. Coburn Co.	38.13
Charles Crevier	2.00
O. P. Davis	50.00
M. F. Gookin Co.	6.38
G. E. Hutchins .....	.94
Lowell Coach Co.	75.00
Lowell Electric Light Corp.	67.95
Lowell Wall Paper Co.	24.00
N. Y., N. H. & H. R. R.	2.38
Geo. F. Noyes	15.00
A. G. Pollard Co.	12.23
Sero Specialty Co.	8.75
Caleb L. Smith	52.23
J. H. Sparks	164.25
G. O. Titcomb	27.00
H. Twoomey	5.75
Henry F. Whiting	5.00
Wm. Wrigley & Co. ....	.30
App. Streets O. E.	274.25

 831.54

 \$11,081.38

NEW HIGHLAND SCHOOL

Balance January 1, 1909	30,752.57
Appropriation	12,500.00

 43,252.57

New Highland School—Continued

Expended

For Wages:—		
To Sundry Persons	3,428.59	
		3,428.59
For Architect:—		
Edwin R. Clark	1,054.26	
		1,054.26
For Sheet Metal Work:—		
T. Costello & Co.	884.00	
		884.00
For Carpenter Work:—		
C. P. Conant	8,446.28	
		8,446.28
For Plumbing, Heating, Ventilating:—		
Farrell & Conaton	7,189.24	
		7,189.24
For Electrical Work:—		
H. F. Harding	812.51	
Tucke & Parker Co.	1,000.00	
		1,812.51
For Brick Work and Plastering:—		
Jas. H. Walker	8,402.60	
		8,402.60
For Fuel:—		
Edward Cawley	586.80	
		586.00
For Furniture, etc:—		
American Seating Co.	2,095.90	
O'Donnell D. G. Co.	101.13	
		2,197.03
For Retaining Wall:—		
E. A. & J. A. Simpson	3,615.00	
		3,615.00

New Highland School—Continued

For Sundries:—

App. Sewer Construction	1,036.10
App. School Hos., O. E.	200.00
App. Buildings, O. E.	9.12
App. Engineering	76.98
F. G. Baldwin	10.00
W. T. S. Bartlett	31.11
E. Bibeault	610.25
P. Blanchard	50.00
B. & M. R. R.	30.90
P. A. Carkins	156.75
Carroll Bros.	38.88
Cheney & Thomson Co.	9.50
M. D. Clay	18.00
C. B. Coburn Co.	99.23
Courier-Citizen Co.	8.70
B. F. Crosby & Co.	15.00
J. L. Douglass & Co.	3.00
C. H. Hanson & Co.	14.00
C. H. Hobson	25.00
Thos. W. Johnson	35.00
A. P. Knapp	404.04
J. Loisele	54.00
Lowell Electric Light Corp.	260.00
Lowell Sun	10.00
Lowell Telegram	2.00
A. G. Lynch Co.	30.00
J. J. Mullaney	25.00
C. F. O'Neil .....	.60
Scannell Boiler Works	6.00
H. M. Spaulding	44.53
Staples Bros. Co. ....	.70
Geo. O. Titcomb	93.00
G. H. Watson	50.00
	<hr/>
	3,457.39

 41,073.70

Balance to 1910 2,178.87

 \$43,252.57

RETUBING BOILERS IN HIGH SCHOOL ANNEX

Appropriation 350.00

 350.00

Retubing Boilers in High School Annex—Continued

Expended

Sundry Persons, Wages	14.55	
Scannell Boiler Works	335.45	
		<u>350.00</u>

NEW BARTLETT SCHOOL GRADING

Appropriation	500.00	
		<u>500.00</u>

Expended

App. Streets, Wages	216.54	
App. Streets, O. E.	218.01	
App. Engineering	10.14	
E. Bibeault	11.25	
Sundry Persons, Wages	43.00	
		<u>498.94</u>
Returned to General Treasury Fund		1.06
		<u>500.00</u>

GREENHALGE SCHOOL IMPROVEMENTS

Appropriation	1,000.00	
		<u>1,000.00</u>

Expended

App. Street, O. E.	34.96	
J. H. Beaulieu	22.50	
J. C. Bennett .....	.35	
E. Bibeault	131.29	
Edward Cawley	15.00	
Mrs. C. Frost	30.00	
Fred Jenness	40.00	
Pratt & Forrest	3.62	
J. J. Sanborn	12.75	
Scannell Boiler Works	7.50	
E. A. & J. A. Simpson	323.52	
E. A. & A. T. Smith	17.90	
Jas. Walsh & Son	123.20	
Geo. B. Wright	12.00	
Sundry Persons, Wages	121.88	
		<u>896.47</u>
Balance to 1910		103.53
		<u>1,000.00</u>

LOWELL TEXTILE SCHOOL

Appropriation	8,000.00	
	<u> </u>	8,000.00
Expended		
To Trustees Lowell Textile School	8,000.00	
	<u> </u>	8,000.00

SCHOOL HOUSE IMPROVEMENTS

Balance, January 1, 1909	1,018.90	
	<u> </u>	1,018.90
Expended		
For Plumbing, Fittings, etc. :—		
H. R. Barker Mfg. Co.	81.12	
Gaffney & Kerwin	75.00	
N. D. Lafleur .....	.70	
D. J. Leary	19.85	
Lowell Furnace Co.	3.50	
Scannell Boiler Works	441.67	
	<u> </u>	621.84
For Sundries :—		
C. F. George & Co.	251.01	
Keefe Bros. ....	.50	
Lowell Wall Paper Co.	145.50	
	<u> </u>	397.01
		1,018.85
Returned to General Treasury Fund .....		.05
		<u> </u>
		1,018.90

REPAIRS AT LINCOLN SCHOOL

Balance, January 1, 1909	741.08	
	<u> </u>	741.08

Repairs at Lincoln School—Continued

Expended

Sundry Persons, Wages	22.40
James L. Gordon	19.21
Samuel E. Snow	169.83
Welch Bros.	337.64

 747.08

SYCAMORE ST. SCHOOL FLAG POLE

Appropriation	70.00
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 70.00

Expended

App. School Hos. O. E.	10.15
C. B. Coburn Co.42
W. A. Mack Co.	4.50
Pratt & Forrest	26.78
Sundry Persons, Wages	10.15

 70.00

LIBRARY AND READING ROOMS—11

LIBRARY

Appropriation	14,000.00
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 14,000.00

To Trustees of City Library	14,000.00
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 14,000.00

RECREATION—12

Park, Salaries and Wages; Park, Other Expenses; New Ball Grounds; Band Concerts; Memorial Day, S. W. V.; Memorial Day, G. A. R.; Play Grounds; Anne St. Imp.; Little Canada Park.

PARK DEPARTMENT

Salaries and Wages

Appropriation	11,002.77	
		11,002.77

Expended

For Salaries and Wages:—		
To Sundry Persons	10,002.72	
Returned to General Treasury Fund	1,000.05	
		11,002.77

Other Expenses

Appropriation	5,045.78	
		5,045.78

Expended

For Shoeing Horses:—		
J. J. Donnelly	94.70	
		94.70
For Carriages, Harnesses and Repairs:—		
Donovan Harness Co.	72.60	
C. H. Hanson & Co.	34.00	
Salois & Leith	24.55	
		131.15
For Water and Lighting:—		
App. Water Works	25.08	
Lowell Electric Light Corp.	15.20	
		40.28

Park Department—Continued

For Hay, Grain, etc.:—

J. A. Boucher	10.10
Geo. M. Foster	75.28
Est. Fred A. Fox	17.27
T. J. McDonald	12.36
Jos. Mullin	851.93
Geo. N. Parker	42.90

1,009.84

For Plants, Shrubs, Trees, etc.:—

Bartlett & Dow	39.90
Ellwanger & Barry	11.25
P. Conroy	32.06
J. B. Cover & Co.	5.70
Mrs. C. A. Frost	14.88
Peter Henderson & Co.	8.50
Isaac Hicks & Son	45.75
Fred Jenness	52.20
C. H. McIntire	5.25
Morse & Beals	129.00
N. E. Nurseries	93.00
Park Land Co.	275.00
H. Parker	28.13
M. A. Patten	66.00
Pulverized Manure Co.	41.60
Mrs. H. Quigley	39.33
Whittet & Co.	298.13
Geo. B. Wright	53.00

1,238.68

For Hardware, etc.:—

Adams H. & P. Co.	2.45
H. R. Barker Mfg. Co.	33.88
Bartlett & Dow	44.65
J. C. Bennett	4.40
O. E. Brennan .....	.30
Cheney & Thomson Co. ....	.75
C. B. Coburn	11.90
Chas. E. Gee	24.70
G. E. Hutchins	22.10
W. A. Mack Co.	3.80
H. Thompson	3.84
Thompson Hardware Co.	46.65
Union Iron Foundry	123.06

322.48

Park Department—Continued

For Stationery, Printing, etc.:—

Baker Printing Co.	6.25
M. L. Davey	2.00
Doubleday, Page & Co.	8.00
Dumas & Co.	44.50
R. J. Haight	1.00
C. I. Hood Co.	103.74
R. C. Paradis	2.40
G. C. Prince & Son	34.26
Sampson & Murdock Co.	3.00
Suffolk Eng. & Elec. Co.	16.42
Union Printing Co.	10.00

231.57

For Express, Transportation, etc.:—

American Express Co. ....	.76
B. & M. R. R.	27.16
N. Y. B. Despatch Express Co. ....	.65
C. A. Whittet	1.80

30.37

For Sundries:—

App. Auditor, O. E.	6.00
App. Engineering	119.27
Adams H. & P. Co.	1.40
J. C. Bennett	15.00
Edward Cawley	311.93
Harry Clapp	185.00
C. B. Coburn Co.	32.70
P. Cogger	179.50
Comm. of Mass. ....	.50
Gumb Bros.	10.25
C. H. Hanson & Co.	250.25
W. E. Hatch	4.00
E. F. Hathaway	6.85
C. M. Holmes	16.00
W. J. Ladd	3.30
Mahan & Meehan	266.00
G. A. Nelson	8.70
N. E. T. & T. Co.	11.69
N. Y. N. H. & H. R. R.	4.12
N. G. Norcross	100.80
Olmsted Bros.	52.44
Pratt & Forrest	45.17
• Amasa Pratt Co.	29.36

Park Department—Continued**For Sundries :—Continued**

Props. Locks & Canals	10.00
C. W. Qua	1.25
Rice & Co.	31.80
Robertson Co.	30.75
W. A. Sherman	1.50
Smith-Premier Typewriter Co.	5.00
E. A. & A. T. Smith	106.92
J. H. Sparks	6.00
D. T. Sullivan	36.18
Talbot D. & C. Co.	4.00
Chas. Wheeler	38.00
C. A. Whittet	1.80
Jas. Whittet .....	.98
E. A. Wilson & Co.	2.30
Chas. F. Young & Co.	10.00

 1,946.71

 5,045.78
NEW BASE BALL GROUNDS

Balance, January 1, 1909	1,000.00
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 1,000.00
Expended

Cyrus Barton	987.80
Courier-Citizen Co.	4.20
Lowell Sun	7.00
For Labor	1.00

 1,000.00
BAND CONCERTS

Appropriation	894.26
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 894.26

Band Concerts—Continued

Expended

For Music:—

American Band	125.00
Lowell Cadet Band	125.00
Lowell Military Band	275.00
Municipal Band	225.00
National Band	125.00

875.00

For Sundries:—

Robertson Co.	12.50
Tucke & Parker	6.76

19.26

894.26

MEMORIAL DAY

Spanish War Veterans

Appropriation	300.00
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300.00

For Entertainment and Transportation:—

City Transfer Co.	5.00
Edith Prescott Auxil.	100.00
Lowell Coach Co.	15.00

120.00

For Printing and Music:—

C. H. Howard	16.00
Lowell Military Band	75.00

91.00

For Sundries:—

J. J. McManmon	31.75
E. E. Nowlan	49.70
Union Printing Co.	6.50

87.95

298.95

Returned to General Treasury Fund

1.05

300.00

MEMORIAL DAY

G. A. R.

Appropriation	1,000.00	
		<u>1,000.00</u>

Expended

For Printing and Music:—

American Band	75.00
J. Avison Baker	40.00
Richard Griffiths	6.00
J. F. Langlois	10.00
Lowell Military Band	75.00
T. McCarthy	7.50
Shaw Stocking Co.	7.00
Union Printing Co.	13.50
Geo. E. Worthen	6.75
	<u>240.75</u>

240.75

For Entertainment and Transportation:—

B. & N. St. Railway	15.00
Page Catering Co.	201.25
Post 42	19.94
Post 120	20.00
Post 185	27.14
F. E. Putnam	4.50
J. H. Sparks	60.00
	<u>347.83</u>

347.83

For Sundries:—

Chas. F. Carr	5.00
F. W. Cragin & Co.	11.10
E. R. Fife	8.00
C. L. Goodwin	1.41
John Harrington	4.00
Masten & Wells Fireworks Co.	105.89
Thomas McDonnell	4.00
Morse & Beals	117.00
Daniel Murphy	4.00
F. B. Peabody	25.00
Pevey Foundry Co.	85.00
Props. Lowell Cemetery	3.00
Joseph P. Townsend	3.02
C. F. Young & Co.	35.00
	<u>411.42</u>

411.42

1,000.00

PLAYGROUNDS

Appropriation	1,500.00	
		<u>1,500.00</u>

Expended

For Wages:—

To Sundry Persons	624.05	
		<u>624.05</u>

For Sundries:—

App. Engineering	2.56	
App. School Hos. Wages	19.19	
App. School Hos. O. E.	73.47	
American Express Co.	2.65	
H. R. Barker Mfg. Co.	2.94	
J. C. Bennett	6.00	
B. & M. R. R.	3.55	
W. P. Brazer & Co.	29.20	
C. B. Coburn Co.	16.74	
C. H. Hanson & Co.	1.25	
Lull & Hartford	4.50	
W. A. Mack Co.	16.60	
Narragansett Machine Co.	324.68	
N. E. Nurseries	11.80	
N. Y. & B. Despatch Express Co. ....	.65	
N. Y. N. H. & H. R. R. ....	.25	
Harry Parker	6.75	
George F. Parsons	2.00	
A. G. Pollard Co.	3.20	
Amasa Pratt Co.	6.67	
A. G. Spaulding & Bros. Co.	297.62	
Thompson Hardware Co. ....	.33	
C. A. Whittet	3.75	
Jas. Whittet	39.60	
		<u>875.95</u>
		<u>\$1,500.00</u>

ANNE ST. GROUNDS

Appropriation	1,500.00	
		<u>1,500.00</u>

Ann St. Grounds—Continued

Expended

For Wages:—

To Sundry Persons	182.92
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182.92

For Sundries:—

H. R. Barker Mfg. Co.	3.81
B. & M. R. R.	1.33
Edward Cawley70
Courier-Citizen Co.	1.50
Enterprise Foundry and Fence Co.	1,234.00
Lowell Sun	4.00
Mahan & Meehan	55.00
N. E. T. & T. Co. ....	.20
Props. Locks & Canals Co.	1.23
Western Union Tel. Co.	1.36
App. Engineering	13.92

1,317.05

1,499.97

Returned to General Treasury Fund03
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\$1,500.00

LITTLE CANADA PARK

Appropriation	2,001.10
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2,001.10

Expended

For Wages:—

To Sundry Persons	319.84
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319.84

For Sundries:—

C. B. Albec Iron Works Co.	150.00
H. R. Barker Mfg. Co.	15.00
Bartlett & Dow	3.26
F. A. Bassett Co.	2.70
John C. Bennett	33.49
Butterfield Printing Co.	2.50

Little Canada Park—Continued

For Sundries :—Continued

C. B. Coburn Co.	9.64
Cross Awning and Sign Co.	50.00
H. J. Fitzpatrick	19.00
C. H. Hanson Co.	6.25
Narragansett Machine Co.	308.80
N. Y. N. H. & H. R. R.	14.36
P. O'Hearn	1.20
Amasa Pratt Co.	28.06
Pratt & Forrest	9.14
Thompson Hardware Co.	11.63
Jas. Whittet	367.37
B. H. Wiggin Co.	148.86

1,181.26

1,501.10

500.00

Balance to 1910.....

2,001.10

SOLDIERS' BENEFITS—13

State Aid, Office Expenses; State Aid; Military Aid; Soldiers' Relief.

STATE AID OFFICE

Appropriation	2,100.00	
		<u>2,100.00</u>
Expended		
For Salaries:—		
H. M. Potter, Supt.	100.00	
G. E. Worthen, Supt.	1,100.00	
M. C. Brennan, Clerk	66.66	
M. F. O'Brien, Clerk	549.83	
		<u>1,816.49</u>
For Office Supplies:—		
App. Incidentals	24.00	
B. & M. R. R.	20.25	
Mary C. Brennan	2.70	
Chas. E. Galley	1.85	
N. E. T. & T. Co. ....	.64	
G. C. Prince & Son	5.00	
		<u>54.44</u>
		1,870.93
Returned to General Treasury Fund		<u>229.07</u>
		2,100.00

STATE AID

Appropriation	19,429.00	
		<u>19,429.00</u>
Expended		
To Sundry Persons	18,050.50	
Returned to General Treasury Fund	1,378.50	
		<u>19,429.00</u>

MILITARY AID

Appropriation	3,052.00	
		<u>3,052.00</u>
Expended		
To Sundry Persons	3,052.00	
		<u>3,052.00</u>

SOLDIERS' RELIEF

Appropriation	15,479.30	
		<u>15,479.30</u>
Expended		
To Sundry Persons	12,138.80	
		<u>12,138.80</u>

For Provisions, Fuel, etc.:—

J. T. Brennan	30.00
J. S. Brooks	48.00
A. A. Brown	59.00
W. H. Brown	4.00
J. H. Burke	48.00
Edward Cawley	113.25
C. Chevalier	29.00
J. B. V. Coburn	19.00
P. Coleman	7.50
P. H. Daley	72.00
C. F. Devno	96.00
Ellingwood & Co.	3.40
Family Supply Co.	173.00
J. H. Flood .....	.40
John Goodwin	3.68
W. T. Griffin	4.00
John St. Market	66.00
A. J. Keith	58.00
J. M. Kingsbury	92.00
R. J. Lang Co.	235.35
Lowell Gas Light Co.	35.20
Fred O. Lewis	2.80
Geo. Lynch	20.00

Soldiers' Relief—Continued

For Provisions, Fuel, etc. :—

J. J. Maguire	44.00
Thomas Mahoney	8.25
Joseph McCarron	16.00
J. J. McCausland	58.00
Geo. E. Mongeau	3.00
Pawtucketville Cash Grocery	5.00
Russell & Boynton	65.00
J. F. Saunders	10.00
John Smith	12.00
Stanley Coal and Wood Co.	132.17
F. R. Strout	66.00
H. L. Timmons	4.20
Union Market	97.00
S. W. Wiggin	25.00

1,765.20

For Interments :—

A. Archambeault	35.00
J. B. Currier	105.00
H. Ela Co.	35.00
G. W. Healey	175.00
J. M. McDermott	35.00
M. H. McDonough & Co.	35.00
C. H. Molloy	105.00
J. F. O'Donnell & Sons	70.00
J. F. Rogers	35.00
Saunders Undertakers Establishment	70.00
Peter H. Savage	35.00
J. A. Weinbeck	105.00
C. M. Young	140.00

980.00

For Physicians :—

Solon Bartlett	14.00
J. F. Boyle	14.00
W. G. Eaton	1.00
W. A. Johnson	19.00
J. E. Leary	285.00
F. A. O'Sullivan	23.00
E. J. Welch	4.00

360.00

Soldiers' Relief—Continued

For Sundries:—

App. Auditor O. E.	6.00
App. Charity O. D. R.	72.35
American Express Co. ....	.20
Lowell Hospital Association	16.00
Lowell Typewriter and O. S. Co.	65.00
C. K. Miller	6.95
N. E. T. & T. Co.	5.66
Sampson & Murdock Co.	3.00
Town of Winchendon	8.53
Geo. E. Worthen	47.66

 235.30

 15,479.30
UNCLASSIFIED—14

Building Fund; Huntington Hall Contingent Fund; Carney Medal Fund; The Cowley Case; The Taylor Tablet; Court Executions and Claims; Target Practice, Co. C and Co. K.

BUILDING FUND

Balance, January 1, 1909	49,708.00	
		49,708.00
Balance to 1910	49,708.00	
		49,708.00

HUNTINGTON HALL CONTINGENT FUND

Balance, January 1, 1909	267.65	
		267.65
Balance to 1910	267.65	
		267.65

CARNEY MEDAL FUND

Balance, January 1, 1909	200.00	
	<u> </u>	200.00
Balance to 1910	200.00	
	<u> </u>	200.00

THE COWLEY CASE

Appropriation	500.00	
	<u> </u>	500.00
Expended		
To T. G. Robbins	481.66	
Returned to General Treasury Fund	18.34	
	<u> </u>	500.00

TAYLOR TABLET

Appropriation	100.00	
	<u> </u>	100.00
Expended		
Murdock Shaw Co.	70.00	
C. Wheeler	5.00	
	<u> </u>	75.00
Returned to General Treasury Fund		25.00
		<u> </u>
		100.00

CLAIMS AND EXECUTIONS

Appropriation	2,042.37	
	<u> </u>	2,042.37

Claims and Executions—Continued

Expended

William Cogger	28.46
Denis E. Conners	23.61
J. C. Donovan	923.36
John Naughton	26.89
Henry L. Riggs	900.00
Alice M. Trites	140.05

 2,042.37

TARGET PRACTICE

Appropriation	234.00
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 234.00

Expended

Co. C.	40.00
Co. K.	194.00

 234.00

INTEREST—15

INTEREST

Appropriation	156,500.00
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 156,500.00

Expended

Bond & Goodwin	3,566.67
Boston Five Cent Savings Bank	8,628.00
Bowery Savings Bank	6,000.00
Bristol County Savings Bank	1,093.75
Central Savings Bank	1,012.62
Charlestown Five Cent Savings Bank	1,593.75
Chicopee Savings Bank	218.75
City Trust Co.	1,717.50

Interest—Continued

Clinton Savings Bank	546.88
Com. of Mass.	2,029.50
Com. of Sinking Funds	271.02
G. C. & C. A. Delaney	120.00
Philip Dexter	2,172.00
First National Bank, Boston	17,329.21
Franklin Savings Bank	1,062.50
Holyoke Mutual Fire Ins. Co.	297.00
Home Savings Bank	4,409.75
Kountze Bros.	541.67
Loan and Trust Savings Bank	342.00
Loring, Tolman & Tupper	2,542.17
Lowell Institution for Savings	26,939.47
Lynn Five Cent Savings Bank	342.00
Malden Savings Bank	1,041.20
Ministry-at-Large	300.00
National Life Insurance Co.	1,964.25
National Life Insurance Co., Montpelier	951.75
Jacob Nathan	40.00
John Nathan	40.00
N. H. Fire Insurance Co.	1,425.00
N. Y. Savings Bank	2,000.00
Trustees Est. Thomas Nesmith	1,560.00
Peoples Savings Bank	2,050.13
Providence Inst. for Savings	2,125.00
Props. Forest Hill Cemetery	2,088.00
Salem Savings Bank	105.00
Salem Five Cent Savings Bank	855.00
Schenectady Savings Bank	1,080.00
Suffolk Savings Bank	2,578.13
Trustees Public Burial Grounds	2,047.07
Bequest Jonathan Tyler	300.00
Union Mutual Life Insurance Co.	852.00
Washington Savings Institution	4,647.68
Woburn Five Cent Savings Bank	180.00
Sundry Persons, Coupons	31,650.62

142,657.04

Returned to General Treasury Fund

13,842.96

156,500.00

PUBLIC CEMETERIES—16

CEMETERIES

Appropriation	7,522.89	
		7,522.89

Expended

For Salaries and Wages:—

R. S. Gilmore, Supt.	1,083.35
S. S. Mayberry, Supt.	100.00
Sundry Persons, Wages	4,567.73

5,751.08

For Hay, Grain, etc.:—

Geo. M. Foster	23.06
Livingston Grain Co.	3.90
T. J. McDonald	19.00
Wilder & Wotton	33.50

79.46

For Hardware, Fittings, etc.:—

Adams H. & P. Co.	8.65
H. R. Barker Mfg. Co. ....	.45
Bartlett & Dow	36.54
J. C. Bennett	40.90
Boutwell Bros.	3.00
Cheney & Thomson Co.	13.45
C. B. Coburn Co.	1.66
Farrell & Conaton	1.28
A. J. Harris & Co.	7.13
Scott & O'Day	197.50
H. H. Wilder & Co.	13.26

323.82

For Carriages, Harnesses and Repairs:—

P. J. A. Boland	6.00
E. P. Bryant	3.00
Donovan Harness Co.	6.70
F. B. Hill & Co.	9.90
A. D. Mitten	25.75
H. Reynolds	3.40
H. Twomey .....	.80

55.55

Cemeteries—Continued

For Plants, Manure, Loam, Sod, etc. :—

L. A. Ayer	1.00
A. A. Brown	24.00
F. H. Buckley	1.75
J. S. Haynes	64.29
Fred W. Jenness	171.36
Frank A. Kappler	8.75
T. A. Laporte	36.00
Morse & Beals	103.70
John P. Quinn	92.00
Frank Whittaker	7.00

509.85

For Stationery, Printing, etc. :—

H. C. Kittredge	2.60
Library Bureau	2.50
G. C. Prince & Son	10.15

15.25

For Water, Fuel, Cement, etc. :—

App. Water Works	32.91
E. Bibeault	60.00
C. F. George	35.00
E. A. Wilson & Co.	20.87

148.78

For Sundries :—

App. Engineering	1.67
App. Auditor O. E.	2.00
Adams H. & P. Co. ....	.25
E. P. Bryant	30.65
Burnham & Davis Lumber Co.	195.87
C. B. Coburn Co.	4.43
J. J. Gray	13.75
C. H. Hanson & Co.	295.00
W. E. Hatch	78.60
Lowell Gas Light Co.	1.62
Manchester & Concord Express Co. ....	.25
N. Y. N. H. & H. R. R. ....	.82
N. E. T. & T. Co.	4.25
N. Y. & B. D. Express Co. ....	.25
Pratt & Forrest	6.69
Henry Reynolds	3.00

639.10

7,522.89

MUNICIPAL INDUSTRIES—17

WATER WORKS

Receipts	212,718.15	
		<u>212,718.15</u>

Expended

For Salaries of Water Board:—

R. J. Crowley	400.00
J. G. Hill	400.00
R. W. Van Tassel	400.00
Jas. McDowell	400.00
	<u>1,600.00</u>

1,600.00

For Salaries and Wages:—

Robert J. Thomas, Supt.	2,000.00
Robert Gardner, Assist. Supt.	1,200.00
John W. Crawford, Clerk	1,600.00
Sundry Persons, Wages	90,630.48
	<u>95,430.48</u>

95,430.48

App. City Debt (Installment on note)	15,200.00
	<u>15,200.00</u>

15,200.00

For Interest:—

Com. of Mass.	400.00
Lowell Institution for Savings	891.00
Roundout Savings Bank	600.00
Sundry Persons, (coupons)	42,680.00
	<u>44,571.00</u>

44,571.00

For Stationery, Printing, etc.:—

Baker Printing Co.	43.00
Banker & Tradesman	5.00
Buckland Printing Co.	57.50
Butterfield Printing Co.	51.00
Courier-Citizen Co.	19.35
Davis Printing Co.	5.00
Dumas & Co.	215.67

Water Works—Continued

For Stationery, Printing, etc.:—Continued

Elliott Co.	102.15
Engineering News Pub. Co.	5.00
Fire and Water Engineering Co.	3.00
C. I. Hood Co.	188.76
H. C. Kittredge	1.25
T. H. Lawler	5.00
Lepine & Co.	1.40
L'Etoile	7.40
Library Bureau	7.75
Lowell Sun	36.00
Lowell Telegram	9.45
Lowell Typewriter Supply Co.	2.40
Municipal Journal	3.00
G. C. Prince & Son	72.28
C. E. Robinson	69.02
Sampson & Murdock Co.	9.00
Smith Typewriter Inspection Co.	14.60
Tobin's Printery	1.50
Union Printing Co.	166.00
M. G. Wight & Co.	36.13

1,137.61

For Teaming, Transportation, etc.:—

American Express Co.	30.20
B. & M. R. R.	80.92
J. W. Crawford	7.50
C. H. Hanson & Co.	20.00
T. Holland	3.50
Manchester & Concord Express Co.	3.45
C. K. Miller	20.25
N. Y. & B. D. Express Co.	11.60
N. Y. N. H. & H. R. R.	1,240.61
J. H. Sparks	16.00
R. J. Thomas	239.77
Edward Walsh	3.90

1,677.70

For Lighting and Telephone:—

Lowell Electric Light Corp.	19.55
Lowell Gas Light Co.	27.93
N. E. T. & T. Co.	130.98
Postal Telegraph Co. ....	.40

178.86

Water Works—Continued

For Carriages, Harnesses and Repairs:—

A. H. Cluer	191.06
Columbus Buggy Co.	14.92
Dodge Motor Vehicle Co.	178.96
Donovan Harness Co.	204.35
A. Gaudette	1.50
F. B. Hill & Co.	61.95
Lowell Automobile Co.	75.20
D. W. Parker	40.00
Parker Harness Co.	9.00
A. Roy	2.40
Sawyer Carriage Co.	5.70
C. A. Smith	20.80

805.84

For Fuel:—

Edward Cawley	155.19
Horne Coal Co.	2,366.53
E. A. Wilson & Co.	2,182.16

4,703.88

For Hay, Grain, etc.:—

D. A. Blake	177.35
J. A. Boucher	3.90
Elmer E. Cole	106.52
G. M. Foster	329.16
T. J. McDonald	106.29
Joseph Mullin	265.76
H. E. Noyes & Son	12.66
Wilder & Wotton	389.21

1,390.85

For Lumber:—

Burnham & Davis Lumber Co.	202.17
Davis & Sargent Lumber Co.	26.27
W. E. Hatch	4.50
Amasa Pratt Co.	252.54
Pratt & Forrest	48.48

533.96

For Brick, Cement, etc.:—

Edward Cawley	69.64
Edward F. Hughes	34.11
E. A. & A. T. Smith	187.70

Water Works—Continued**For Brick, Cement, etc.:—Continued**

Staples Bros.	337.50
D. T. Sullivan	4,240.57
Jas. Walsh & Son	110.28
E. A. Wilson & Co.	218.69

5,198.49

For Hardware, Hydrants, Meters, etc.:—

Adams H. & P. Co.	100.83
American and British Mfg. Co.	302.04
Ames Iron Works	20.25
Ashton Valve Co.	4.15
F. G. Baldwin	9.03
H. R. Barker Mfg. Co.	606.94
W. T. S. Bartlett	18.00
Bartlett & Dow	39.42
Barnes-Pope Electric Co. ....	.90
J. C. Bennett	395.98
Geo. F. Blake Mfg. Co.	21.25
H. L. Bond Co.	64.00
Boston Engineers Supply Co.	298.68
Boston Steam Specialty Co.	7.27
Boutwell Bros.	287.95
Builders Iron Foundry	1,274.32
Braman, Dow & Co.	35.51
W. W. Carey Co.	9.91
Cancos Mfg. Co.	65.72
Carroll Bros.	6.18
Chapman Valve Mfg. Co.	6.62
Cheney & Thomson Co.	327.78
A. W. Chesterton & Co.	8.28
City Iron Foundry	78.15
Coffin Valve Co.	125.00
T. Costello & Co.	6.06
C. B. Coburn Co.	234.35
Deane Steam Pump Co.	121.84
Derby & Morse	6.03
Doherty Bros.	309.38
W. & B. Douglass	15.08
H. S. Drury	445.35
C. A. Dunham Co.	12.32
Fairbanks Co.	4.50
Geo. W. Fifield	665.00
W. D. Forbes Mfg. Co.	4.62
H. C. Girard Co.	2.04
Greenwood Bros.	5.00

Water Works—Continued

For Hardware, Hydrants, Meters, etc.:—Continued

Greenwood Mfg. and Supply Co.	19.08
C. E. Guthrie & Son	3.50
Hersey Mfg. Co.	1,904.25
Holly Mfg. Co.	5.00
W. H. Hope Co. ....	.60
Jenkins Bros.	3.46
Jones Gauge Co.	10.30
John Kelley & Co.	9.60
C. M. Kemp Mfg. Co.	13.00
Kennedy Valve Mfg. Co.	90.50
N. D. Lafleur	4.22
Lead Lined Iron Pipe Co.	5,142.40
D. Lovejoy & Son .....	.50
Lowell Machine Shop	17.51
Lowell Wrench Co.	2.25
Ludlow Valve Mfg. Co.	967.06
Lynchburg Foundry Co.	5,264.45
W. A. Mack Co.	102.85
W. H. McElholm	1.94
Walter McLeod & Co.	27.00
Middlesex Machine Co.	794.55
Morse T. D. & Machine Co.	1.75
National Meter Co.	2,898.52
N. E. Electric and Supply Corp.	79.12
Nephtune Meter Co.	162.60
Nichols Foundry Co.	7.80
Norwood Engineering Co.	5.40
Peninchuck Water Works	49.74
Pevey Foundry Co.	4.24
A. T. Pierce	50.00
Pittsburg Meter Co.	120.00
Reading Crane and Hoist Works .....	.65
Rensselaer Mfg. Co.	411.75
Scannell Boiler Works	424.41
Scott & O'Day Co.	327.48
A. P. Smith Mfg. Co.	553.00
E. E. Smith	32.88
C. L. Stanley	9.06
Suffolk Engineering and Electric Co.	20.15
D. P. Sullivan	12.50
Thompson Hardware Co.	248.76
Thomson Meter Co.	387.82
Tucke & Parker Co.	41.00
J. S. Turner Mfg. Co.	1.31
Union Water Meter Co.	117.95

Water Works—Continued**For Hardware, Hydrants, Meters, etc.:—Continued**

F. S. Webster Co.	1.00
W. E. Westall	7.00
H. H. Wilder & Co. ....	.70
Henry R. Worthington	85.17
David Ziskind	18.00

26,410.51

For Paints, Oil, Packing, etc.:—

Adams H. & P. Co.	37.78
F. G. Baldwin	43.40
Cheney & Thomson Co.	34.00
C. B. Coburn Co.	917.43
C. E. Guthrie & Son	10.60
Lowell Waste Co.	93.61
Senet-Solway Co.	41.51
Valvoline Oil Co.	55.91

1,234.24

For Refunds:—

To Sundry Persons	412.60
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412.60

For Vacancy List:—

To Sundry Persons	230.87
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230.87

For Sundries:—

App. Auditor O. E.	4.00
App. Engineering	810.41
Allis Chalmers Co.95
Bay State Lamp Co.	11.00
F. M. Bill & Co.	30.35
C. B. Coburn Co.	120.94
W. R. Conard	117.21
J. B. Cover & Co.	2.65
Dennis J. Crowley	144.00
J. J. Donnelly	35.75
Est. Edwin Duren	3.50
Emerson App. Co.	50.00
Elliott Co.	218.50
Farley & Tierney	183.00
F. J. Flemings	5.00
J. H. Flemings	23.50
Foye Bros.	15.00

Water Works—Continued

For Sundries:—

Daniel Gage	9.43
M. F. Gookin Co.	45.75
Greenwood Bros.	5.00
C. H. Hanson & Co.	280.00
H. E. Harris	3.00
W. E. Hatch	10.00
E. Howard Clock Co.	6.00
G. E. Hutchins	55.37
W. A. Ingham Co.	3.15
A. L. Kittredge & Co.	8.90
Mass. Com. for the Blind	2.55
John J. McCann	1.45
J. J. Moriarty	6.00
John Mountford	77.85
J. Murkland & Son	60.24
G. A. Nelson	4.00
John J. O'Connor	139.08
Oblate Fathers Society	10.00
Pawtucketville Cash Grocery	19.56
A. G. Pollard Co.	20.17
Props. Locks & Canals	11.59
Henry Reynolds	31.50
S. A. Shattuck	203.32
C. A. Smith	19.80
Smith Typewriter Inspection Co.	1.00
J. H. Sparks	15.00
Staples Bros. Co.	150.00
Talbot D. & C. Co.	23.90
H. E. Webster	35.00
W. E. Westall	4.50
H. F. Whiting	85.76
Whittet & Co.	232.00
Wm. Zimmer .....	.50

		3,357.13
Overdrafts General Treasury Fund	7,637.49	
		7,637.49
		211,711.51
Balance to 1910		1,006.64
		212,718.15

PUBLIC INDEBTEDNESS—18

Temporary Loans

City Debt.

CITY DEBT

Appropriation	298,934.20	
		298,934.20

Expended

Boston Five Cent Savings Bank	22,100.00	
Central Savings Bank	15,120.00	
Com. of Mass.	7,750.00	
Com. of Sinking Funds	671.30	
G. C. & C. A. Delaney	2,000.00	
Philip Dexter	5,430.00	
Home Savings Bank	11,600.00	
Lowell Institution for Savings	169,204.90	
Lynn Five Cent Savings Bank	3,600.00	
Malden Savings Bank	2,740.00	
National Life Insurance Co.	7,200.00	
N. H. Fire Insurance Co.	7,500.00	
Roundout Savings Bank	7,500.00	
Salem Savings Bank	1,500.00	
Schenectady Savings Bank	13,500.00	
Washington Savings Institution	21,518.00	
		298,934.20

TEMPORARY LOANS

Balance, January 1, 1909	800,000.00	
Receipts	1,200,000.00	
		2,000,000.00

Expended

City Trust Co.	500,000.00	
First National Bank, Boston	800,000.00	
		1,300,000.00
Balance to 1910		700,000.00
		2,000,000.00

SINKING FUNDS—19

SINKING FUNDS

Appropriation	30,500.00	
	<hr/>	
		30,500.00
		<hr/>

Expended

To Com. of Sinking Funds	30,500.00	
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		30,500.00
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INDEX

GENERAL INFORMATION—

Assets and Liabilities	5
Accountants' Report	20
Appropriations and Expenditures	100
City Treasurer's Report	22
Cash Receipts and Payments	8
Capital Receipts and Payments	8
City Cemeteries—Trust Fund	23
City Debt Statement	50-38
Commissioners' of Sinking Fund Report	25
General Treasury Fund—Revenue	110
General Treasury Fund—Payments	111
Limit of Indebtedness	39
Outstanding Assessments	51
City Debt Payments	40
Receipts and Payments Classified	7
Table of Expenditures	53
Table of Loans	54
Table of Valuation	55
Temporary Accounts	7
Trust Funds	32
Valuation City Property	45

BY SCHEDULES—

1 Taxation	9
2 Licenses	10
3 Special Assessments	10
4 Refunds	10
5 General Government	11
6 Protection—Life and Property	12
7 Health and Sanitation	13
8 Highways and Bridges	14
9 Charities	15
10 Education	16
11 Libraries and Reading Rooms	17
12 Recreation	17
13 Soldiers' Benefits	17
14 Unclassified Accounts	18
15 Interest	18
16 Cemeteries	18
17 Municipal Industries	19
18 Municipal Indebtedness	19
19 Sinking Funds	19

ACCOUNTS—

Abatements	116
Auditor	122
Assessors	124
Anne Street Grounds	234
Band Concerts	231
Building Funds	240
Clerk of Committees	119
Clerk of Council	120
City Clerk	126
Care of Trees	193
Cabot Street Bridge	199
Charity Department	200
Carney Medal Fund	241
Conley Case	241
Claims	241
Cemeteries	244
City Debt	253
Elections	133
Engineering	182
Fire	147

Grade Crossings	193
Greenhalge School	225
Health Office	167
Health Yard	170
Huntington Hall Contingent Fund	240
Incidentials	117
Insurance	138
Inspector of Buildings	153
Inspector of Wires	158
Inspector of Milk and Vinegar	174
Inspector of Animals	173
Interest	242
Liquor Licenses	115
Law	128
Lighting	190
Library	227
Little Canada Park	235
Mayor	121
Messenger	129
Moths	194
Moody Street Bridge	196
Macadamizing Streets	197
Middlesex Street Paving	197
Memorial Day	232
Military Aid	238
New Fire Apparatus	165
New Fire House	159
New Highland School	222
New Gutters—Schools	226
New Boilers—Schools	224
New Sidewalks	192
Police	140
Pound Keeper	146
Parks	228
Registrars	134
Rifle Range	146
Repairs to Buildings	163
Repairs to Boulevard	199
Supply	136
State Supervisors	139
Sealer	162
Shower Baths	161
Sewer Construction	178
Sewer Maintenance	175
Sewer—Wigginville	190
Sewer—Oaklands	180
Streets	184
Street Watering	191
State Highway Tax	197
Schools	211
School Houses	219
State Aid	237
Soldiers' Relief	239
Sinking Funds	254
Temporary Loans	253
Tax of County	113
Tax of City	113
Tax of Corporations	115
Tax of National Bank	115
Tax of State	114
Treasurer	123
Textile School	226
Taylor Tablet	241
Underground Wires	159
Weigher	161
Water Works	246



ROBERT J. CROWLEY
Member of Water Board since 1903
President 1904-5-6-8-9

THIRTY-SEVENTH
ANNUAL REPORT
OF THE
Lowell Water Board

TO THE
City Council of the City of Lowell, Mass.

AND THE
Reports of the Superintendent of Water Works
and of the City Engineer to the
Water Board for 1909.



LOWELL, MASS.
COURIER-CITIZEN COMPANY, PRINTERS.
1910.

WATER DEPARTMENT, 1909.

WATER BOARD

ROBERT J. CROWLEY, President.

Term expires second Monday in March, 1911.

JAMES G. HILL,

Term expires second Monday in March, 1910.

ROBERT W. VAN TASSEL,

Term expires second Monday in March, 1912.

JAMES McDOWELL,

Term expires second Monday in March, 1913.

JOHN W. CRAWFORD, Secretary and Clerk.

ROBERT J. THOMAS, Superintendent.

ROBERT GARDNER, Assistant Superintendent.

GEORGE BOWERS, City Engineer.

D. B. H. BARTLETT, Engineer.

THOMAS McLAUGHLIN, Engineer.

FRED A. COX, Keeper Reservoir.

THOMAS F. DOYLE, Foreman.

WILLIAM JOYCE, Assistant Foreman.

DANIEL CORCORAN, Meter Inspector.

THOS. HOLLAND, Hydrants and Gates.

EDWARD WALSH, Services.

OFFICE

HAZEN G. PILLSBURY, Service Clerk.

JULIA J. RAFTER, Bookkeeper.

ALICE T. MCCARTHY, Assistant Bookkeeper.

JULIA A. MORRIS, Assistant Bookkeeper.

INSPECTORS

JOHN F. EGAN.

JOHN E. LOWNEY.

EDWARD J. BOYLE.

THOMAS B. RAFTER.

WALTER P. WILEY.

Report of the Water Board

OFFICE OF THE WATER BOARD,
CITY HALL.

LOWELL, MASS., January 1, 1910.

*To His Honor the Mayor and the City Council of the
City of Lowell:*

The Thirty-seventh annual report of the Water Board is herewith presented for your consideration, together with the reports of the Superintendent of Water Works and of the City Engineer.

The membership of the Board has continued the same, Mr. James McDowell being re-elected to succeed himself. Mr. Robert J. Crowley was re-elected President and Mr. Robert J. Thomas, Superintendent.

The Board was called upon at the beginning of the year to part with two of its most efficient and trustworthy employees, Miss Gertrude Byam, a clerk in the office since 1893, and Mr. George E. Worthen, Inspector and clerk since 1888, both of whom resigned to take

effect February 1, 1909. Their positions were filled from the Civil Service list by Miss Julia A. Morris and Mr. Hazen G. Pillsbury.

The finances of the Department have been carefully looked after during the year, beginning with a deficit of \$7,637.49, owing to payments on the New Holly Pump in 1908. The expenditures for the year were \$4,266.50 less than 1908, exclusive of the new pump. The Holly Pump has fulfilled the claims made for it by the builders, that it would save two-thirds of the amount of coal used by the old pumps, and appears to be doing better than that, for, where the old pumps consumed an average of six tons of coal a day and pumped 400 gallons per lb., the Holly uses one ton per day pumping 1,800 gallons per lb.

The average amount paid for coal per year has been in excess of \$19,000.00. For 1909, it was \$8,869.41. This shows the economy of up-to-date pumping machinery. Although so great a saving would not be made at Centralville Station with a new pump there, a great saving in use of fuel and cost of repairs, as well as having a reliable pump to be depended upon, would be a most gratifying result; and we purpose to take steps early in the year to ask for authorization for a loan for that purpose.

500 tons of coal were purchased from E. A. Wilson for Cook plant @ \$4.07 per ton.

1000 tons from D. T. Sullivan for \$4.23 per ton and

500 " " Horne Coal Co. " 4.68 " " also

100 " Hard coal Screenings from E. Cawley @ \$2.60 per ton. Coal has been purchased on the heat unit basis and is found very satisfactory.

The following pipe was purchased from the Lynchburg Foundry Co.:

6 tons 4"	@ \$25.20 per ton
100 " 6"; 100 tons 8"	@ 24.20 " "
20 " 10"; 26 " 12"	} @ 23.95 " "
4 " 16"; 8 " 30"	

In December a petition was received from Mr. Richard Taff, asking for the use of the Filter at the Gallery, for fish culture. The Board deeming it unwise to grant the use for that purpose, granted leave to withdraw.

The receipts for the year were	\$212,718.15
The expenditures for 1909 were	\$204,074.02
Overdraw " 1908	7,637.49
Total outgo	\$211,711.51
Balance January 1, 1910	1,006.64
	<u>\$212,718.15</u>

Showing the receipts of the year were \$8,644.13 more than the ordinary expenses.

The Cost of Works to January 1, 1909	\$3,135,912.90
Expended for Construction in 1909	15,950.98
Total Cost to January 1, 1910	<u>\$3,151,863.88</u>
Water Works Debt.	
Water Works Bonds, 1920	\$1,000,000.00
High service	75,000.00
Notes	31,400.00
	<u>\$1,106,400.00</u>
Deduct Sinking Fund for Bonds	584,580.62
Net Debt January 1, 1910	<u>\$ 521,819.38</u>

Attention was given during the year to a systematic closing up of dead ends to give better circulation and better water to those immediately adjacent. The growth of the system will soon require the laying of mains of greater capacity to maintain adequate pressure in some sections. The report of the Superintendent herewith is so complete that we can add nothing to the information therein, and to indorse the recommendation made as to increasing the water supply by new wells and installing a new pump in Centralville Station.

ROBERT J. CROWLEY.
JAMES G. HILL.
ROBERT W. VAN TASSEL.
JAMES McDOWELL.

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1909.

TABLE I	CHARGES				RECEIPTS BY ACCOUNTS			
	WATER		Other than Water	Total 1909	Receipts	Discounts	Abatements	Due
	Rate	Metered	Total					
Transfer .....	.....	.....	.....	\$ 3,228.11	\$ 1,189.66	\$ 5.61	\$173.45	\$ 1,859.39
January .....	.....	\$ 34,878.71	\$ 34,878.71	41,676.01	38,129.16	3,334.70	161.75	50.40
April .....	.....	39,701.67	39,701.67	41,148.76	37,318.41	3,726.96	40.07	63.32
May	\$27,791.83	.....	27,791.83	27,791.83	25,162.22	2,273.04	183.57	173.00
July	352.13	66,587.29	66,939.42	70,883.09	64,197.77	6,186.77	127.25	371.30
October	529.60	42,691.28	43,220.88	52,038.20	46,721.23	4,053.63	195.67	1,007.67
	\$28,673.56	\$183,858.95	\$212,532.51	\$236,796.00	\$212,718.45	\$19,580.71	\$881.76	\$3,585.08

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1909—OUTGO

TABLE II	Pay Roll and Salaries	Water Works Supplies	Interest and Principal	Refund and Vacancies	General Expense	Stable	Fuel	Total 1909	Total 1908
January	\$ 6,540.94	\$ 688.71	\$ 440.00	\$ 63.85	\$ 172.79	\$ 238.36	\$ 23.89	\$ 8,168.54	\$ 13,011.58
February	5,621.91	1,478.76	680.00	30.31	45.46	249.93	37.98	8,144.35	18,850.73
March	6,383.33	4,794.49	.....	1.82	156.37	54.19	76.18	11,466.38	12,890.84
April	6,598.07	6,568.95	20.00	47.90	131.34	457.97	2,848.21	16,672.44	16,426.60
May	9,385.75	1,549.27	19,445.50	27.09	308.99	110.89	6.17	30,833.66	39,551.58
June	7,394.35	1,959.84	940.00	301.34	516.14	64.82	1,428.79	12,605.28	13,784.11
July	9,550.91	3,827.49	12,500.00	48.98	78.77	240.76	1,467.52	27,714.43	34,193.25
August	8,479.41	1,563.56	2,060.00	67.35	229.98	253.54	738.49	13,392.33	14,965.83
September	9,031.05	4,204.77	.....	7.00	88.38	357.56	.....	13,688.76	19,697.01
October	11,528.29	1,424.76	60.00	13.68	467.34	358.93	.....	13,853.00	15,941.00
November	8,667.93	3,007.55	20,665.50	30.75	360.35	360.54	918.91	34,011.53	24,367.79
December	8,658.95	330.95	2,960.00	.....	154.08	96.07	1,323.27	13,523.32	13,031.02
	\$97,840.89	\$31,399.10	\$59,771.00	\$640.07	\$2,709.99	\$2,843.56	\$8,869.41	\$204,074.02	\$236,710.34

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1909.

SUB-DIVISION OF "OTHER THAN WATER CHARGES" FROM TABLE I.

TABLE III	Meters Sold	Expense Setting Meters	Expense Repairing Meters	New Services	Change Services	Labor and Material	Shut-off Fees	Interest	Total 1909	Total 1908
January	\$3,308.25	\$288.24	\$ 394.86	\$ 426.53	\$ 649.33	\$1,720.09	\$10.00	.....	\$ 6,797.30	\$ 5,854.70
April	431.75	54.66	311.79	52.75	96.30	495.84	4.00	.....	1,447.09	1,463.27
July	1,723.75	212.89	270.47	567.01	687.92	285.17	.....	\$196.46	3,943.67	5,969.07
October	2,095.04	71.99	330.76	1,323.13	1,061.45	3,920.95	14.00	.....	8,817.32	7,240.32
Total	\$7,558.79	\$627.78	\$1,307.88	\$2,369.42	\$2,495.00	\$6,422.05	\$28.00	\$196.46	\$21,005.38	\$20,527.36

FINANCIAL STATEMENT—LOWELL WATER WORKS, 1909.

SUB-DIVISION OF "PAY ROLL AND SALARIES" FROM TABLE II.

TABLE IV.	Salary W. B.	Meter Work	Office and Officials	Extension C'tn'str'ct'n	Engin- eering	P. S. Centralville	P. S. Boulevard	P. S. Cook Plant	New Services	Change Services	General Maint'n ce	Total 1909	Total 1908
January . . .	\$ 133.32	\$ 297.65	\$ 1,061.77	\$ 82.20	.....	\$ 684.34	\$ 592.15	.....	\$ 7.50	\$ 28.50	\$ 3,653.51	\$ 6,540.94	\$ 5,184.59
February . .	133.32	258.50	922.39	76.72	.....	638.72	579.18	.....	24.50	20.12	2,968.46	5,621.91	7,242.93
March	133.32	321.53	921.84	76.72	412.94	638.72	559.04	\$ 14.00	115.38	61.25	3,128.59	6,383.33	6,460.71
April	133.32	279.44	958.81	185.57	95.62	631.47	572.29	149.50	98.51	194.49	3,299.02	6,598.07	6,849.43
May	133.32	366.00	1,206.90	1,025.25	79.18	796.90	719.36	.....	327.21	422.10	4,309.53	9,385.75	9,452.96
June	133.32	254.81	965.52	483.58	.....	597.29	570.79	131.93	193.46	288.70	3,774.95	7,394.35	7,948.24
July	133.36	310.94	1,206.90	461.14	58.10	718.90	746.55	592.00	410.14	426.63	4,486.25	9,550.91	6,791.89
August	133.36	284.50	965.52	703.31	.....	568.72	596.04	450.56	231.33	282.20	4,263.87	8,479.41	7,534.53
September . .	133.36	228.78	965.52	680.26	95.45	622.97	552.04	392.00	150.41	292.23	4,918.03	9,031.05	6,376.62
October	133.36	330.00	1,203.90	182.04	.....	858.40	700.55	385.00	141.79	332.48	7,257.77	11,528.29	8,193.44
November . . .	133.36	259.01	965.52	383.72	.....	662.22	571.29	179.50	243.25	207.75	5,062.31	8,667.93	6,549.73
December . . .	133.28	317.25	1,166.14	164.06	69.12	792.17	738.96	204.00	239.50	240.25	4,594.22	8,658.95	7,182.11
Total	\$1,600.00	\$3,503.41	\$12,513.73	\$4,504.57	\$810.41	\$8,210.82	\$7,498.24	\$2,498.49	\$2,182.98	\$2,796.70	\$51,716.54	\$97,840.89	\$85,767.18

TABLE V.
FINANCIAL STATEMENT
LOWELL WATER WORKS, 1909.

SUB-DIVISION "WATER WORKS SUPPLIES" FROM TABLE II.

Supplies, Centralville Station	\$ 1,384.60
Supplies, Boulevard Station	723.44
Supplies, Cook Plant Station	656.37
Cast Iron Pipe and Specials	7,678.54
Hydrants, Gates and Boxes	3,175.61
Meters	5,710.19
Machinery and Tools	1,248.56
Foundry	302.04
Service Pipe and Boxes	5,374.92
Miscellaneous	5,144.83
	<hr/>
	\$31,399.10

TABLE VI.
FINANCIAL STATEMENT
LOWELL WATER WORKS, 1909.

DETAIL OF "PRINCIPAL AND INTEREST" FROM TABLE II.

TABLE VI.	Amount of Debt Jan. 1, 1909	Rate	Interest Paid 1909	Paid on Notes 1909	Amount of Debt Jan. 1, 1910	Date of Maturity
Water Loan Bonds	\$1,000,000.00	4	.....	.....	\$1,000,000.00	1920
4 Coupons, No. 33.... May 1, 1907	.....	....	\$ 80.00	.....	.....	.....
4 Coupons, No. 34.... Nov. 1, 1907	.....	....	80.00	.....	.....	.....
4 Coupons, No. 35.... May 1, 1908	.....	....	80.00	.....	.....	.....
26 Coupons, No. 36.. Nov. 1, 1908	.....	....	520.00	.....	.....	.....
969 Coupons, No. 37 May 1, 1909	.....	....	19,780.00	.....	.....	.....
952 Coupons, No. 38 Nov. 1, 1909	.....	....	19,040.00	.....	.....	.....
High Service Bonds..	75,000.00	4	.....	.....	75,000.00	1911
2 Coupons, No. 54.... Nov. 1, 1908	.....	....	200.00	.....	.....	.....
15 Coupons, No. 55.. May 1, 1908	.....	....	1,500.00	.....	.....	.....
14 Coupons, No. 56.. Nov. 1, 1908	.....	....	1,400.00	.....	.....	.....
NOTES	10,000.00	4	400.00	\$ 5,000.00	5,000.00	1910
	15,000.00	4	600.00	7,500.00	7,500.00	1910
	21,600.00	4½	891.00	2,700.00	18,900.00	1916
	\$1,121,600.00		\$44,571.00	\$15,200.00	\$1,106,400.00	

Report of the City Engineer

OFFICE OF THE CITY ENGINEER.

LOWELL, MASS., January 1, 1910.

To the Lowell Water Board:

GENTLEMEN:—I have the honor to submit the Thirty-seventh Annual Report, for the year ending December 31, 1909.

PUMPAGE.

Total net pumpage for 1909.....	1,909,792,832 Gallons
Total net pumpage for 1908.....	1,922,341,696 Gallons
Decrease in 1909	12,548,864 Gallons

CONSUMPTION.

Consumption for 1909	1,912,740,525 Gallons
Consumption for 1908	1,921,634,322 Gallons
Decrease in 1909	8,893,797 Gallons

The maximum pumpage for any one day was on Saturday, October 16th, viz.:

At West Sixth Street Station	6,079,320 Gallons
At Cook Wells Station	3,271,680 Gallons

Total	9,351,000 Gallons
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The maximum pumpage for one week was on the week of June 27th to July 3rd, viz.:

At West Sixth Street Station	20,346,120 Gallons
At Cook Wells Station	28,137,600 Gallons

Total	48,483,720 Gallons
-------------	--------------------

High Service pumpage for 1909	63,219,422 Gallons
High Service pumpage for 1908	52,728,354 Gallons
Increase in 1909	10,491,068 Gallons

Cost of Low Service pumpage in 1909..	\$16.29 per million gals.
Cost of Low Service pumpage in 1908..	18.88 per million gals.
Decrease in 1909	2.59 per million gals.

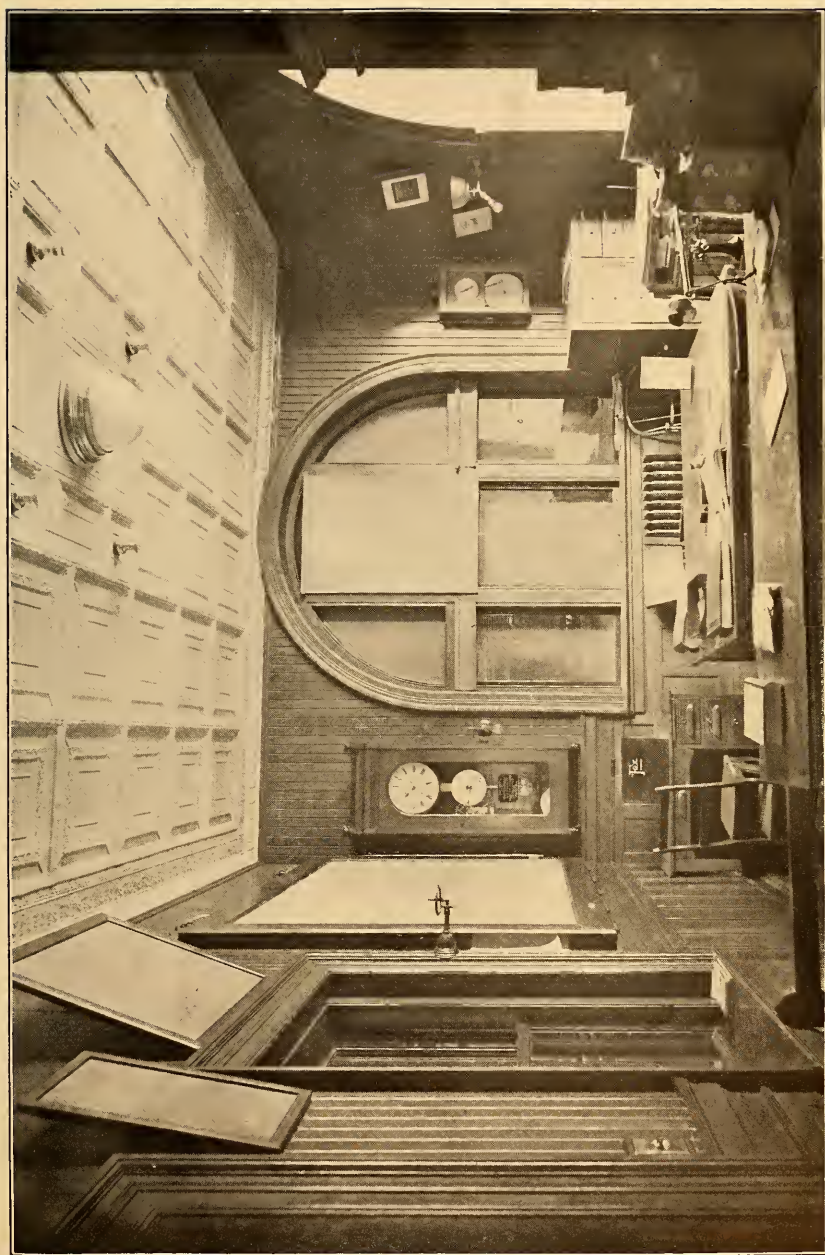
Cost of High Service pumpage in 1909.	\$14.19 per million gals.
Cost of High Service pumpage in 1908.	13.54 per million gals.
Increase in 1909 .....	.65 per million gals.

Cost of Low Service pumpage, exclusive of Cook Wells, in 1909	\$13.15 per million gals.
--	---------------------------

Total cost of High Service pumpage (Cost of Low Service plus Cost of High Service), exclusive of Cook Wells, in 1909.....	\$27.35 per million gals.
--	---------------------------

Total cost of High Service pumpage (Cost of Low Service plus Cost of High Service), exclusive of Cook Wells, in 1908.....	\$33.07 per million gals.
--	---------------------------

Decrease in 1909	\$ 5.72 per million gals.
------------------------	---------------------------



SUPERINTENDENT'S OFFICE—Hampshire Street

TABLE SHOWING QUANTITY PUMPED EACH MONTH AT THE SEVERAL STATIONS DURING
THE YEAR 1909.

Months	PUMPING STATIONS											Grand Totals	Net Totals
	Driven Wells												
	Cook Wells	Pawtucket Boulevard Wells			Totals	Net Totals	Worthington High Duty	Worthington Duplex	Morris	Totals Low Service	High Service		
		Lower	Upper	Totals									
Jan. . . . .	.....	159,409,719	.....	159,409,719	159,409,719	.....	121,353,480	32,492,960	.....	153,846,440	3,101,784	316,357,943	153,846,440
Feb. . . . .	.....	147,443,787	.....	147,443,787	147,443,787	.....	139,456,800	.....	.....	139,456,800	1,885,058	288,785,645	139,456,800
March . . . . .	.....	155,440,746	.....	155,440,746	155,440,746	.....	147,405,600	.....	.....	147,405,600	2,631,090	305,477,436	147,405,600
April	40,936,960	109,814,589	.....	109,814,589	150,751,549	40,936,960	107,107,200	.....	.....	107,107,200	2,374,330	260,233,079	148,044,160
May . . . . .	.....	157,852,030	.....	157,852,030	157,852,030	.....	149,754,600	.....	3,204,160	152,958,760	2,848,272	313,659,062	152,958,760
June	16,629,696	154,597,894	.....	154,597,894	171,227,590	16,629,696	148,642,200	.....	.....	148,642,200	4,787,216	324,657,006	165,271,896
July	108,026,880	17,854,549	64,795,462	82,650,011	190,676,891	108,026,880	25,780,680	20,552,070	35,332,480	81,665,230	9,500,050	281,842,171	189,692,110
August	95,951,360	15,991,498	77,454,340	93,445,838	189,397,198	95,951,360	10,527,480	84,586,910	.....	95,114,390	8,875,244	293,386,832	191,065,750
Sept.	55,251,200	113,695,795	.....	113,695,795	168,946,995	55,251,300	107,867,520	.....	.....	107,867,520	7,754,992	284,569,507	163,118,720
Oct.	25,170,176	144,593,523	.....	144,593,523	169,763,699	25,170,176	76,227,840	46,436,760	9,340,480	132,005,080	8,170,498	309,939,277	157,175,256
Nov. . . . .	.....	149,762,917	.....	149,762,917	149,762,917	.....	.....	145,160,600	1,029,440	146,190,040	8,265,390	304,218,347	146,190,040
Dec. . . . .	.....	157,106,931	.....	157,106,931	157,106,931	.....	.....	155,567,300	.....	155,567,300	3,025,498	315,699,729	155,567,300
Totals	341,966,272	1,483,563,978	142,249,802	1,625,813,780	1,967,780,052	341,966,272	1,034,123,400	484,796,600	48,906,560	1,567,826,560	63,219,422	3,598,826,034	1,909,792,832

TABLE SHOWING SOURCE OF SUPPLY, QUANTITY PUMPED AND COST OF PUMPING AT THE SEVERAL STATIONS DURING THE YEAR 1909.

PUMPING STATIONS	SOURCE OF SUPPLY—WELL WATER				COST	
	345 Driven Wells at Paytucket Boulevard	210 Driven Wells in Valley of River Meadow Brook	Distributing Mains of Low Service System	Totals in U. S. Gallons	Totals	Per Million Gallons
West Sixth Street Low Service	1,567,826,560	.....	.....	1,567,826,560	\$14,399.80	\$ 9.18 +
High Service .....	.....	.....	63,219,422	63,219,422	897.25	14.19 +
Cook Wells .....	.....	341,966,272	.....	341,966,272	5,981.74	17.49 +
*Lower Boulevard	1,483,563,978	.....	.....	1,483,563,978	9,029.77	6.09—
*Upper Boulevard	142,249,802	.....	.....	142,249,802	1,692.30	11.90—
Total Pumpage .....	.....	.....	.....	3,598,826,034	\$32,000.86	\$ 8.89 +
Deduct { at Lower Boulevard	1,483,563,978	.....	.....	.....	.....	.....
Quantity { at Upper Boulevard	142,249,802	.....	.....	.....	.....	.....
Pumped { by High Service .....	.....	.....	63,219,422	1,689,033,202	.....	.....
Net Pumpage .....	.....	.....	.....	1,909,792,832	\$32,000.86	\$16.76—
Cost exclusive of High Service .....	.....	.....	.....	1,909,792,832	31,103.61	16.29—
Cost exclusive of High Service and Cook Wells .....	.....	.....	.....	1,909,792,832	25,121.87	13.15 +
Total Cost of High Service Pumpage .....	.....	.....	.....	63,219,422	1,728.82	27.35—

*Repumped at West Sixth Street.

The following tables, showing the performance of the engines, depth and quantity of water in the Beacon Street Reservoir, average temperature of the air and water at the Beacon Street Reservoir, and the average monthly and daily consumption of water, have been calculated and compiled from the records kept by the engineers and gatekeeper.

TABLE SHOWING WORK DONE WITH WORTHINGTON HIGH DUTY ENGINE, FOR EACH MONTH DURING THE YEAR 1909.

MONTHS	No. of days p'mping	Average No. of hours p'mping per day	No. of hours p'mping month	No. of strokes made per month	Average No. of strokes made per minute	Average head including friction in feet	Quantity pumped per month in U. S. gallons	Average Quantity pumped per day in U. S. gallons	No. gallons of water pumped into reservoir per lb. Total coal consumed	Duty in lbs. 1 foot high with 100 lbs. coal used in p'mping only; no deduction for ashes or clinkers	Duty on total coal consumed; no deduction for ashes or clinkers
January	24	22-23	537-15	337,093	10.46	164.11	121,353,480	5,056,395	592	81,043,778	81,043,778
February . . .	28	22-19	625-00	387,380	10.33	164.12	139,456,800	4,980,600	608	84,044,519	83,261,019
March	31	22-16	690-30	409,460	9.88	164.02	147,405,600	4,755,019	659	91,282,167	90,227,104
April	24	20-33	493-15	297,520	10.05	163.31	107,107,200	4,462,800	586	80,842,630	79,875,796
May	31	22-16	690-30	415,985	10.04	163.95	149,754,600	4,830,794	760	105,116,498	103,969,424
June	30	21-40	650-15	412,895	10.58	164.18	148,642,200	4,954,740	727	100,568,611	99,536,163
July	11	10-12	112-15	71,613	10.63	163.93	25,780,680	2,343,698	496	70,060,629	67,901,875
August	3	15-50	47-30	29,243	10.26	161.75	10,527,480	3,509,160	736	99,353,955	99,353,955
September . .	28	17-18	484-15	299,632	10.31	163.71	107,867,520	3,852,411	709	96,893,156	96,893,156
October	16	20-32	328-30	211,744	10.74	164.17	76,227,840	4,764,240	611	88,510,510	83,731,904
November . . .	...	.....	.....	.....	.....	.....	.....	.....	....	.....	.....
December . . .	...	.....	.....	.....	.....	.....	.....	.....	....	.....	.....
Totals and Averages .	226	20-37	4,659-15	2,872,565	10.28	163.91	1,034,123,400	4,575,767	652	90,323,167	89,212,687

TABLE SHOWING WORK DONE WITH WORTHINGTON DUPLEX ENGINE, FOR EACH
MONTH DURING THE YEAR 1909.

MONTHS	No. of days p'p'ing	Average No. of hours p'p'ing per day	No. of hours p'p'ing per month	No. of strokes made per month	Average No. of strokes made per minute	Average head including friction in feet	Quantity pumped per month in U. S. gallons	Average Quantity pumped per day in U. S. gallons	No. gallons of water pumped into reservoir per lb. Total coal consumed	Duty in lbs. 1 foot high, with 100 lbs. coal used in p'p'ing only; no deduction for ashes or clinkers	Duty on total coal consumed; no deduction for ashes or clinkers
January	8	22-22	179-00	104,816	9.76	164.10	32,492,960	4,061,620	439	60,139,333	60,139,333
February ...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March .....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
April .....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
May .....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
June .....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
July	8	14-15	114-00	66,297	9.69	163.36	20,552,070	2,569,009	470	64,102,044	64,102,044
August	27	18-36	502-00	272,861	9.06	164.01	84,586,910	3,132,849	484	67,085,477	66,255,985
September ...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October	11	20-34	226-15	149,796	11.03	163.44	46,436,760	4,221,524	435	59,313,603	59,313,603
November...	30	23-56	718-15	468,260	10.87	163.88	145,160,600	4,838,687	481	66,271,424	65,790,318
December ...	31	23-50	739-00	501,830	11.32	161.44	155,567,300	5,018,300	456	61,418,957	61,418,957
Totals and Averages .	115	21-33	2,478-30	1,563,860	10.52	163.18	484,796,600	4,215,623	465	63,609,691	63,344,132

TABLE SHOWING WORK DONE WITH MORRIS ENGINE (BEAM AND FLY WHEEL) FOR
EACH MONTH DURING THE YEAR 1909.

MONTHS	No. of days pumping	Average No. of hours pumping per day	No. of hours pumping per month	No. of strokes made per month	Average No. of strokes made per minute	Average head including friction in feet	Quantity pumped per month in U. S. gallons	Average Quantity pumped per day in U. S. gallons	No. gallons of water pumped into reservoir per lb. total coal consumed	Duty in lbs. 1 foot high coal used in pumping only; no deduction for ashes or clinkers	Duty on total coal consumed; no deduction for ashes or clinkers
January ....	...	...	...	...	...	...	...	...	...	...	...
February ...	...	...	...	...	...	...	...	...	...	...	...
March .....	...	...	...	...	...	...	...	...	...	...	...
April .....	...	...	...	...	...	...	...	...	...	...	...
May	2	7-52	15-45	10,013	10.60	163.70	3,204,160	1,602,080	467	63,763,348	63,763,348
June .....	...	...	...	...	...	...	...	...	...	...	...
July	15	13-16	199-00	110,414	9.25	163.40	35,332,480	2,355,499	483	67,317,281	65,844,909
August .....	...	...	...	...	...	...	...	...	...	...	...
September ..	...	...	...	...	...	...	...	...	...	...	...
October	5	9-36	48-00	29,189	10.14	163.60	9,340,480	1,868,096	465	63,430,797	63,430,797
November ...	2	2-30	5-00	3,217	10.72	163.70	1,029,440	514,720	476	65,060,470	65,060,470
December ..	...	...	...	...	...	...	...	...	...	...	...
Totals and Averages ...	24	11-09	267-45	152,833	9.51	163.49	48,906,560	2,037,773	478	66,261,138	65,224,537

TABLE SHOWING WORK DONE WITH WORTHINGTON HIGH SERVICE
ENGINE, FOR EACH MONTH DURING THE YEAR 1909.

MONTHS	No. of days pumping	Average No. of hours pumping per day	No. of hours pumping per month	No. of strokes made per month	Average No. of strokes per minute	Average head including friction in feet	Quantity pumped per month in U. S. gallons	Average Quantity pumped per day in U. S. gallons	No. gallons of water pumped into reservoir per lb. Total coal consumed	Coal in lbs. used when pumping
January	11	14-22	158-00	221,556	23.37	70.28	3,101,784	281,980	250	12,407
February	6	15-30	93-00	134,647	24.13	70.28	1,885,058	314,176	250	7,540
March	10	13-42	137-00	187,935	22.86	70.28	2,631,090	263,109	250	10,524
April	8	16-00	128-00	169,595	22.08	70.28	2,374,330	296,791	250	9,497
May	10	15-51	158-30	203,448	21.39	70.28	2,848,272	284,827	250	11,393
June	17	21-00	357-00	341,944	15.96	86.59	4,787,216	281,601	250	19,149
July	31	24-00	744-00	678,575	15.20	93.38	9,500,050	306,453	250	38,000
August	31	24-00	744-00	633,946	14.20	93.38	8,875,244	286,298	250	35,501
September . . .	30	24-00	720-00	553,928	12.82	93.38	7,754,992	258,500	250	31,020
October	31	24-00	744-00	583,607	13.07	93.38	8,170,498	263,564	250	32,682
November . . .	30	24-00	720-00	590,385	13.67	93.38	8,265,390	275,513	250	33,062
December . . .	9	18-40	168-00	216,107	21.44	72.85	3,025,498	336,166	250	12,102
Totals and Averages . . .	224	21-45	4,871-30	4,515,673	15.45	87.40	63,219,422	282,230	250	252,877

TABLE SHOWING WORK DONE WITH HOLLY HIGH DUTY ENGINE (CRANK AND FLY WHEEL)
AT PUMPING STATION, LOWER BOULEVARD, FOR EACH MONTH DURING THE YEAR 1909.

MONTHS	No. of days pumping	Average No. of hours pumping per day	No. of hours pumping per month	No. of strokes made per month	Average No. of strokes made per minute	Average head including friction in feet	Quantity pumped per month in U. S. gallons	Average Quantity pumped per day in U. S. gallons	No. gallons pumped into Conduit per lb. Total coal consumed	Duty in lbs. 1 foot high with 100 lbs. coal used in pumping only; no deduction for ashes or clinkers	Duty on total coal consumed; no deduction for ashes or clinkers
January	31	23-33	730-00	1,053,461	24.05	38.50	159,409,719	5,142,249	1,779	57,146,513	57,146,513
February . . .	28	22-49	639-00	974,384	25.41	39.58	147,443,757	5,265,850	1,741	57,479,829	57,479,829
March	31	23-10	718-25	1,027,232	23.83	36.68	155,440,746	5,014,218	1,603	40,064,125	49,064,125
April	24	20-34	493-30	725,711	24.51	39.05	109,814,589	4,575,608	1,549	54,002,926	50,475,372
May	31	22-52	709-00	1,043,167	24.52	41.65	157,852,030	5,092,001	1,860	65,233,227	64,618,433
June	30	21-37	648-40	1,021,662	26.25	47.59	154,597,894	5,153,263	1,896	75,292,328	75,292,328
July	8	9-04	72-35	117,992	27.09	51.68	17,854,549	2,231,818	1,087	49,443,023	46,855,011
August	5	13-29	67-25	105,680	26.13	41.10	15,991,498	3,198,300	1,553	53,237,284	53,237,284
September . .	28	17-30	490-10	751,360	25.55	42.38	113,695,795	4,060,564	1,655	58,511,243	58,511,243
October	28	22-31	630-30	955,548	25.26	40.63	144,593,523	5,164,054	1,903	66,652,723	64,512,149
November . . .	30	24-00	720-00	989,710	22.91	33.07	149,762,917	4,992,097	2,121	58,530,284	58,530,284
December . . .	31	23-52	740-00	1,038,243	23.38	35.37	157,106,931	5,067,966	2,066	60,979,620	60,979,620
Totals and Averages .	305	21-50	6,659-15	9,804,150	24.54	39.75	1,483,563,978	4,864,144	1,795	60,157,792	59,522,438

TABLE SHOWING AMOUNT OF COAL USED FOR
 WORTHINGTON HIGH DUTY ENGINE AT
 PUMPING STATION, WEST SIXTH
 STREET, DURING THE YEAR 1909.

MONTHS	COAL CONSUMED			
	For Starting Fires, In Pounds	When Pumping, In Pounds	For Banking Fires, In Pounds	Total Per Month, In Pounds
January.....	.....	205,017	.....	205,017
February.....	2,138	227,203	.....	229,341
March	2,584	220,977	.....	223,561
April	2,185	180,515	.....	182,700
May	2,150	194,869	.....	197,019
June.....	2,100	202,452	.....	204,552
July	800	50,327	800	51,927
August .....	.....	14,299	.....	14,299
September ...	.....	152,053	.....	152,053
October	2,932	117,960	3,800	124,692
November ...	.....	.....	.....	.....
December ...	.....	.....	.....	.....
Totals ...	14,889	1,565,672	4,600	1,585,161

TABLE SHOWING AMOUNT OF COAL USED FOR
 WORTHINGTON DUPLEX ENGINE AT PUMPING
 STATION, WEST SIXTH STREET,
 DURING THE YEAR 1909.

MONTHS	COAL CONSUMED			
	For Starting Fires, In Pounds	When Pumping, In Pounds	For Banking Fires, In Pounds	Total Per Month In Pounds
January .....	.....	73,971	.....	73,971
February ....	.....	.....	.....	.....
March .....	.....	.....	.....	.....
April .....	.....	.....	.....	.....
May .....	.....	.....	.....	.....
June .....	.....	.....	.....	.....
July .....	.....	43,697	.....	43,697
August	2,160	172,531	.....	174,691
September ...	.....	.....	.....	.....
October .....	.....	106,755	.....	106,755
November....	2,190	299,482	.....	301,672
December ...	.....	341,153	.....	341,153
Totals ...	4,350	1,037,589	.....	1,041,939

TABLE SHOWING AMOUNT OF COAL USED FOR
MORRIS ENGINE AT PUMPING STATION, WEST
SIXTH STREET, DURING THE YEAR 1909.

MONTHS	COAL CONSUMED			
	For Starting Fires, In Pounds	When Pumping, In Pounds	For Banking Fires, In Pounds	Total Per Month, In Pounds
January
February
March
April
May	6,863	.....	6,863
June
July	800	71,552	800	73,152
August
September
October	20,099	.....	20,099
November....	2,161	.....	2,161
December
Totals ...	800	100,675	800	102,275

TABLE SHOWING AMOUNT OF COAL USED FOR DEANE
ENGINES AT PUMPING STATION, COOK
WELLS, DURING THE YEAR 1909.

MONTHS	COAL CONSUMED			
	For Starting Fires, In Pounds	When Pumping, In Pounds	For Banking Fires, In Pounds	Total Per Month In Pounds
January
February
March
April	166,510	.....	166,510
May
June	68,100	.....	68,100
July	432,220	.....	432,220
August	400,840	.....	400,840
September	227,770	.....	227,770
October	115,095	.....	115,095
November....
December
Totals	1,410,535	.....	1,410,535

Gallons pumped per pound of total coal consumed = 242.

TABLE SHOWING AMOUNT OF COAL USED FOR
HOLLY ENGINE AT PUMPING STATION,
LOWER BOULEVARD, DURING
THE YEAR 1909.

MONTHS	COAL CONSUMED			
	For Starting Fires, In Pounds	When Pumping, In Pounds	For Banking Fires, In Pounds	Total per Month, In Pounds
January	89,600	.....	89,600
February	84,705	.....	84,705
March	96,951	.....	96,951
April	66,250	4,630	70,880
May	800	84,085	.....	84,885
June	81,525	.....	81,525
July	15,570	860	16,430
August	10,300	.....	10,300
September	68,705	.....	68,705
October	73,536	2,440	75,976
November....	70,596	.....	70,596
December	76,027	.....	76,027
Totals ...	800	817,850	7,930	826,580

TABLE SHOWING AMOUNT OF COAL USED FOR
 WORTHINGTON ENGINES AT PUMPING STA-
 TION, UPPER BOULEVARD, DURING
 THE YEAR 1909.

MONTHS	COAL CONSUMED			
	For Starting Fires, In Pounds	When Pumping In Pounds	For Banking Fires, In Pounds	Total per Month, In Pounds
January .....	.....	.....	.....	.....
February ....	.....	.....	.....	.....
March .....	.....	.....	.....	.....
April .....	.....	.....	.....	.....
May : .....	.....	.....	.....	.....
June .....	.....	.....	.....	.....
July	1,160	146,725	.....	147,885
August	1,310	178,161	.....	179,471
September ...	.....	.....	.....	.....
October .....	.....	.....	.....	.....
November....	.....	.....	.....	.....
December ...	.....	.....	.....	.....
Totals ...	2,470	324,886	.....	327,356

Gallons pumped per pound of total coal consumed = 435.

WEST SIXTH STREET PUMPING STATION, WORTH-
INGTON HIGH DUTY ENGINE, RUNNING
EXPENSES FOR THE YEAR 1909.

Pay of Engineers and Firemen	\$5,172.82
220 1700-2000 tons of coal (Pocahontas, 1908), at \$4.3125	952.41
16 1189-2000 tons of coal (Screenings, 1909), at \$2.232	37.04
20 355-2000 tons of coal (Screenings, 1909), at \$2.0089	40.53
462 1146-2000 tons of coal (New River, 1909), at \$3.7768	1,747.05
14 48-2000 tons of coal (Screenings, 1909), at \$2.3214	32.56
58 723-2000 tons of coal (New River, 1909), at \$4.1786	243.87
443 9-100 gallons of cylinder oil, at \$0.368	163.05
54 39-100 gallons of engine oil, at \$0.195	10.61
79 pounds of packing, at \$0.561	44.34
151 52-100 pounds of cotton waste, at \$0.0849	12.86
145 pounds of grease, at \$0.177	25.60
Repairs on engine	210.45
Repairs on boilers	42.83
Tools and stock	11.59
Sundries	184.18
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Total	\$8,931.79

Cost of pumping water into reservoir per million gallons, \$8.64—

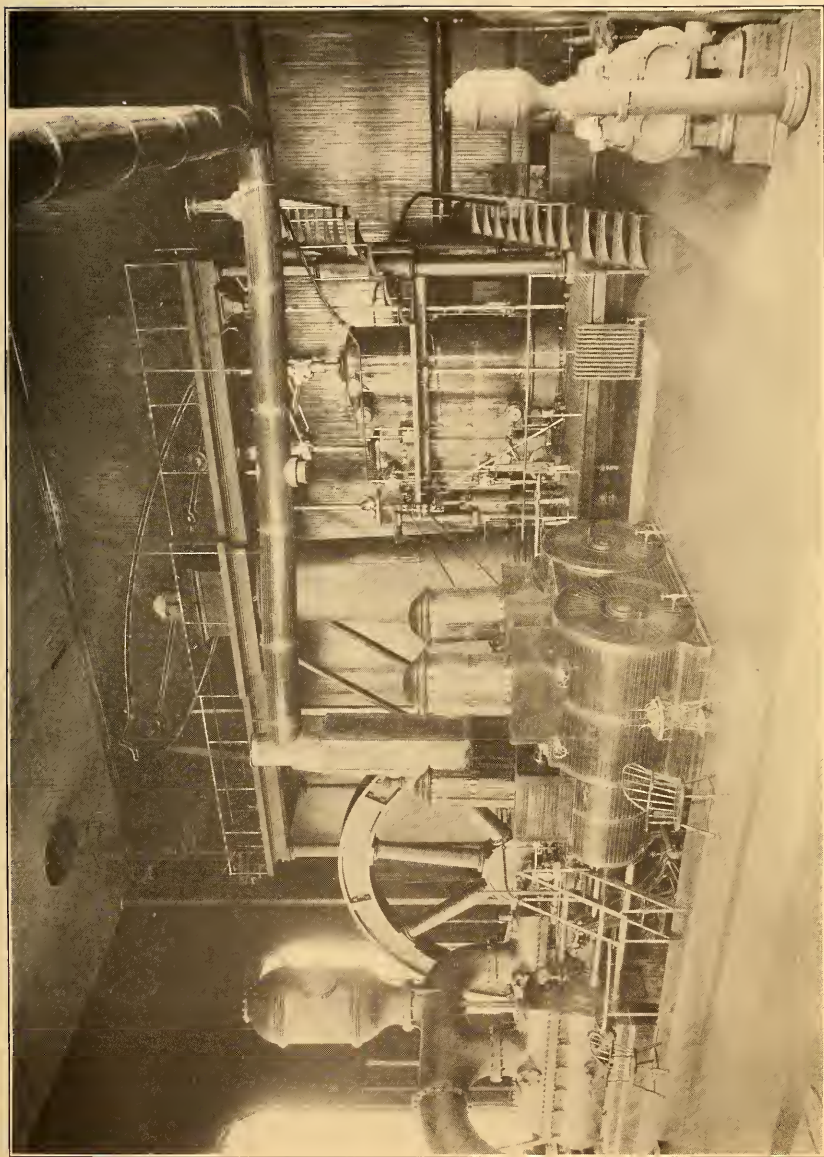
Cost of pumping water one foot high per million gallons, \$0.05 27-100—

WEST SIXTH STREET PUMPING STATION, WORTH-
INGTON DUPLEX ENGINE, RUNNING
EXPENSES FOR THE YEAR 1909.

Pay of Engineers and Firemen	\$2,463.25
145 136-2000 tons of coal (Pocahontas, 1908), at \$4.3125	625.61
10 1801-2000 tons of coal (Screenings, 1909), at \$2.232	24.33
13 508-2000 tons of coal (Screenings, 1909), at \$2.0089	26.63
303 1693-2000 tons of coal (New River, 1909), at \$3.7768	1,147.57
9 424-2000 tons of coal (Screenings, 1909), at \$2.3214	21.38
38 1377-2000 tons of coal (New River, 1909), at \$4.1786	161.66
211 gallons of cylinder oil, at \$0.368	77.64
25 90-100 gallons of engine oil, at \$0.195	5.05
20 25-100 pounds of packing, at \$0.632	12.80
72 15-100 pounds of cotton waste, at \$0.0849	6.13
22 pounds of tallow, at \$0.07	1.54
Repairs on engine	22.90
Repairs on boilers	20.39
Tools and stock	5.52
Sundries	87.71
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Total	\$4,710.11

Cost of pumping water into reservoir per million gallons, \$9.72—

Cost of pumping water one foot high per million gallons, \$0.05 95-100 +



INTERIOR OF CENTRALVILLE PUMPING STATION—MORRIS PUMP

Worthington Low Duty

Worthington Low Duty, for High Service System

WEST SIXTH STREET PUMPING STATION, MORRIS
ENGINE, RUNNING EXPENSES FOR
THE YEAR 1909.

Pay of Engineers and Firemen	\$246.32
14 1230-2000 tons of coal (Pocahontas, 1908), at \$4.3125	63.03
1 196-2000 tons of coal (Screenings, 1909), at \$2.232	2.45
1 671-2000 tons of coal (Screenings, 1909), at \$2.0089	2.68
30 1223-2000 tons of coal (New River, 1909), at \$3.7768	115.61
0 1856-2000 tons of coal (Screenings, 1909), at \$2.3214	2.15
2 1099-2000 tons of coal (New River, 1909), at \$4.1786	10.65
21 10-100 gallons of cylinder oil, at \$0.368	7.76
2 59-100 gallons of engine oil, at \$0.195	0.51
20 pounds of packing, at \$0.694	13.88
7 21-100 pounds of cotton waste, at \$0.0849	0.61
18 pounds of tallows, at \$0.07	1.26
Repairs on engine	279.63
Repairs on boilers	2.04
Tools and stock	0.55
Sundries	8.77
<hr/>	
Total	\$757.90

Cost of pumping water into reservoir per million gallons, \$15.50—

Cost of pumping water one foot high per million gallons, \$0.09 48-100—

WEST SIXTH STREET PUMPING STATION, WORTH-
INGTON HIGH SERVICE ENGINE, RUNNING
EXPENSES FOR THE YEAR 1909.

Pay of Engineers and Firemen	\$328.43
35 369-2000 tons of coal (Pocahontas, 1908), at \$4.3125	151.73
2 1287-2000 tons of coal (Screenings, 1909), at \$2.232	5.90
3 429-2000 tons of coal (Screenings, 1909), at \$2.0089	6.46
73 1388-2000 tons of coal (New River, 1909), at \$3.7768	278.33
2 468-2000 tons of coal (Screenings, 1909), at \$2.3214	5.19
9 936-2000 tons of coal (New River, 1909), at \$4.1786	39.56
28 13-100 gallons of cylinder oil, at \$0.368	10.35
3 46-100 gallons of engine oil, at \$0.195	0.67
10 pounds of packing, at \$1.10	11.00
9 62-100 pounds of cotton waste, at \$0.0849	0.82
Repairs on engine	43.66
Repairs on boilers	2.72
Tools and stock	0.74
Sundries	11.69
<hr/>	
Total	\$897.25

Cost of pumping water into reservoir per million gallons, \$14.19 +
Cost of pumping water one foot high per million gallons, \$0.16 24-100—

COOK WELLS PUMPING STATION, DEANE ENGINES,
RUNNING EXPENSES FOR THE
YEAR 1909.

Pay of Engineers and Firemen	\$2,498.49
209 tons of coal (Pocahontas, 1908), at \$4.3125	901.31
27 880-2000 tons of coal (Buckwheat No. 3, 1909), at \$2.759 ..	75.71
468 1655-2000 tons of coal (New River, 1909), at \$3.6339	1,703.67
100 gallons of kerosene oil for lighting works, at \$0.10	10.00
134 90-100 gallons of cylinder oil, at \$0.333	44.89
60 7-100 gallons of engine oil, at \$0.197	11.84
46 pounds of packing, at \$1.119	51.47
43 pounds of cotton waste, at \$0.085	3.66
6 pounds of grease, at \$0.14	0.84
13 pounds of tallow, at \$0.07	0.91
Repairs on engines	261.49
Repairs on boilers	333.28
Tools and stock	46.17
Sundries	38.01
<hr/>	
Total	\$5,981.74

Cost of pumping water into distributing mains per million gallons, \$17.49 +

LOWER BOULEVARD PUMPING STATION, HOLLY
ENGINE, RUNNING EXPENSES FOR
THE YEAR 1909.

Pay of Engineers and Firemen	\$6,598.45
413 580-2000 tons of coal (Pocahontas, 1908), at \$4.4554	1,841.37
800 gallons of kerosene oil for lighting works, at \$0.10	80.00
565 6-100 gallons of cylinder oil, at \$0.361	203.99
69 50-100 gallons of engine oil, at \$0.306	21.29
20 pounds of packing, at \$1.25	25.00
221 50-100 pounds of cotton waste, at \$0.085	18.76
10 pounds of grease, at \$0.14	1.40
Repairs on engine	10.62
Repairs on boilers	12.35
Tools and stock	16.72
Sundries	199.82
<hr/>	
Total	\$9,029.77

Cost of pumping water into conduit per million gallons, \$6.09—

UPPER BOULEVARD PUMPING STATION, WORTHING-
TON ENGINES, RUNNING EXPENSES
FOR THE YEAR 1909.

Pay of Engineers and Firemen	\$ 899.79
163 1356-2000 tons of coal (Pocahontas, 1908), at \$4.4554	729.25
100 gallons of kerosene oil for lighting work, at \$0.10	10.00
70 35-100 gallons of cylinder oil, at \$0.3285	23.11
20 gallons of engine oil, at \$0.195	3.90
10 pounds of packing, at \$1.25	12.50
50 pounds of cotton waste, at \$0.085	4.25
Repairs on boilers	3.00
Tools and stock	1.50
Sundries	5.00
<hr/>	
Total	\$1,692.30

Cost of pumping water into conduit per million gallons, \$11.90—

RESERVOIR, BEACON STREET, 1909.

MONTHS	Depth in Feet	Quantity in U. S. Gallons	Temperature in Degrees	
			Of Water	Of Air
January	19.95	30,432,865	48.60	29.24
February	19.84	30,245,737	44.96	30.86
March	19.46	29,613,095	42.23	36.99
April	19.22	29,206,405	42.00	48.36
May	19.64	29,914,333	42.39	57.31
June	19.64	29,907,321	44.72	71.61
July	19.93	30,399,074	46.61	72.68
August	19.98	30,487,776	48.48	70.14
September	19.76	30,102,402	53.07	63.87
October	18.44	27,903,594	56.32	52.63
November	17.92	27,046,464	56.00	45.92
December	18.98	28,796,732	51.95	31.05

TABLE SHOWING THE AVERAGE MONTHLY AND
DAILY CONSUMPTION OF WATER
FOR THE YEAR 1909.

MONTHS	Gallons per Month	Gallons per Day
January.....	154,835,826	4,994,704
February.....	140,718,878	5,025,674
March	148,240,654	4,781,957
April	145,382,437	4,846,081
May	153,382,416	4,947,820
June.....	165,130,819	5,504,361
July	189,550,891	6,114,545
August	191,206,969	6,167,967
September	164,103,294	5,470,110
October	159,261,848	5,137,479
November	145,913,652	4,863,788
December	155,012,841	5,000,414
Totals and Averages	1,912,740,525	5,2403,85

The following table shows the average daily consumption of water, in gallons, for each month and each year since the installation of the system.

AVERAGE DAILY CONSUMPTION OF WATER IN GALLONS, FOR EACH MONTH AND YEAR FROM JANUARY, 1873, TO DECEMBER, 1909, INCLUSIVE.

YEARS	MONTHS												For the Year
	January	February	March	April	May	June	July	August	Septemb'r	October	November	December	
1873	308,777	373,437	327,321	356,148	430,301	569,770	836,215	588,634	571,621	511,022	480,646	591,202	511,462
1874	683,910	667,770	628,840	609,470	730,361	919,830	977,360	895,820	880,880	760,560	750,060	890,220	789,206
1875	1,211,480	1,277,880	1,092,070	920,810	1,061,770	1,314,750	1,389,590	1,662,070	1,248,470	1,117,280	1,130,260	1,549,500	1,222,300
1876	1,484,980	1,527,880	1,325,790	1,073,602	1,275,570	1,554,764	1,891,640	2,060,020	1,539,326	1,348,380	1,193,370	1,805,810	1,484,882
1877	1,993,090	1,616,882	1,443,180	1,291,636	1,455,870	1,780,113	2,067,740	2,175,780	1,908,975	1,501,890	1,496,773	1,560,420	1,631,360
1878	2,038,990	1,894,880	1,683,690	1,287,310	1,824,240	1,760,330	2,067,740	2,175,780	1,908,975	1,501,890	1,496,773	1,560,420	1,631,360
1879	2,407,950	2,241,030	1,921,940	1,716,560	2,020,250	1,931,590	2,133,170	2,059,340	1,908,050	1,576,330	1,756,600	2,178,000	1,804,990
1880	1,977,760	2,144,660	1,933,610	1,839,800	2,223,670	2,486,780	2,486,780	2,492,330	2,408,940	2,268,430	2,220,350	2,578,000	2,023,200
1881	3,151,280	3,054,550	2,845,410	2,222,330	2,223,670	2,281,370	2,353,280	2,472,330	2,370,290	2,205,760	2,082,790	2,158,930	2,399,168
1882	2,883,560	2,809,540	2,263,290	2,163,990	2,203,580	2,774,220	3,220,640	3,220,680	2,651,390	2,434,430	2,211,800	2,639,940	2,622,610
1883	3,341,650	3,068,900	2,839,330	2,436,600	2,730,670	2,907,920	2,988,780	3,220,680	2,910,440	2,408,160	2,374,830	3,063,920	2,862,710
1884	3,600,150	3,032,120	3,025,910	2,513,700	2,620,820	3,127,330	3,185,420	3,303,190	3,243,620	3,567,880	3,125,447	3,547,620	3,563,220
1885	4,137,730	4,924,980	3,907,890	3,103,350	2,996,500	3,443,140	3,545,920	3,922,610	3,693,650	3,440,450	3,516,680	4,408,650	3,967,650
1886	4,527,610	4,927,900	4,213,570	3,405,590	3,416,380	3,903,860	4,054,170	3,922,610	3,693,650	3,440,450	3,516,680	4,408,650	3,967,650
1887	5,470,290	4,762,659	4,276,024	3,707,956	4,222,327	4,300,546	4,522,064	4,320,440	4,200,049	3,894,148	4,512,348	4,480,818	4,319,164
1888	6,611,570	6,707,935	5,305,426	4,213,317	4,241,156	4,836,489	4,868,093	4,646,388	4,367,616	4,378,848	4,266,827	4,560,882	4,481,118
1889	4,889,917	5,495,132	4,344,194	4,139,759	4,516,328	4,738,913	4,919,008	4,769,079	4,668,705	4,349,478	4,266,827	4,560,882	4,481,118
1890	5,034,440	5,317,487	5,087,524	4,697,240	4,692,172	5,294,919	6,101,190	5,533,636	5,671,520	5,350,569	5,074,750	6,674,367	5,919,692
1891	6,346,284	6,049,080	5,688,225	5,292,180	5,530,009	6,076,131	6,191,724	6,467,698	6,179,573	5,877,054	5,661,719	5,823,698	5,719,692
1892	8,311,281	8,614,450	6,983,591	5,340,879	5,241,053	6,371,317	6,742,737	6,460,251	6,336,374	6,290,239	5,613,792	5,893,565	6,074,263
1893	8,639,570	8,888,586	6,988,744	6,046,910	5,910,870	6,330,711	7,796,530	6,746,621	6,194,761	6,415,510	5,990,053	6,325,056	6,186,943
1894	7,268,740	7,817,660	6,580,717	5,340,879	6,154,997	6,915,305	7,082,587	6,571,033	6,190,377	5,821,950	5,909,004	6,550,504	6,568,170
1895	7,280,484	8,318,300	6,469,630	6,034,913	6,452,212	7,093,373	7,133,286	7,343,446	6,193,030	5,970,680	5,956,262	6,814,985	6,933,304
1896	8,347,435	7,958,693	6,645,162	6,223,680	7,034,685	7,093,373	7,133,286	7,343,446	6,193,030	5,970,680	5,956,262	6,814,985	6,933,304
1897	7,422,486	7,050,337	6,498,264	6,187,508	6,401,053	6,296,706	6,885,289	7,058,729	6,197,896	5,970,680	5,956,262	6,814,985	6,933,304
1898	7,769,816	7,244,795	6,232,698	6,202,828	6,395,113	6,612,048	7,143,828	7,058,729	6,197,896	5,970,680	5,956,262	6,814,985	6,933,304
1899	8,127,419	8,114,248	8,024,115	7,605,888	6,551,731	8,037,693	8,696,110	8,268,526	7,133,286	6,183,286	6,128,699	6,985,349	7,586,205
1900	7,511,163	8,127,419	8,024,115	7,605,888	6,551,731	8,037,693	8,696,110	8,268,526	7,133,286	6,183,286	6,128,699	6,985,349	7,586,205
1901	6,171,220	9,055,112	8,260,895	6,914,052	6,580,172	7,038,342	7,263,332	6,766,772	6,514,839	5,107,818	5,748,730	5,969,016	5,729,325
1902	6,171,220	9,055,112	8,260,895	6,914,052	6,580,172	7,038,342	7,263,332	6,766,772	6,514,839	5,107,818	5,748,730	5,969,016	5,729,325
1903	6,160,966	6,054,612	5,115,198	5,147,423	5,521,737	5,124,402	5,563,775	5,018,208	4,936,025	4,809,428	4,613,355	5,125,584	5,486,823
1904	6,655,276	6,188,622	5,554,904	4,791,851	5,220,702	5,562,331	5,576,895	5,136,152	5,417,024	4,940,185	4,580,887	5,257,670	5,486,823
1905	5,777,996	6,857,265	5,525,104	4,957,313	5,283,217	5,152,313	5,555,262	5,819,160	5,426,986	5,447,880	4,983,105	5,034,701	5,474,202
1906	4,834,565	5,142,265	5,005,104	4,957,313	5,283,217	5,152,313	5,555,262	5,819,160	5,426,986	5,447,880	4,983,105	5,034,701	5,474,202
1907	5,812,515	6,967,163	5,996,990	5,059,614	5,485,391	5,640,334	6,674,592	5,440,741	5,426,986	5,198,286	4,492,625	5,269,259	5,266,118
1908	4,802,107	6,303,981	5,126,110	4,847,459	4,879,046	5,597,233	6,130,861	5,026,745	5,410,566	4,674,718	4,574,252	4,607,384	5,250,367
1909	4,394,194	5,023,674	4,781,957	4,846,081	4,947,820	5,504,361	6,114,545	6,167,967	5,470,110	5,137,479	4,863,788	5,000,414	5,240,485

SUMMARY OF STATISTICS.

FOR THE YEAR ENDING DECEMBER 31, 1909.

In form recommended by the New England Water Works
Association.

LOWELL WATER WORKS.

LOWELL, MIDDLESEX COUNTY, MASSACHUSETTS.

GENERAL STATISTICS.

Population by census of 1905, 94,889.

Date of construction, 1870 to 1873.

Date of construction, High Service, 1881.

Date of construction, Driven Wells, 1893 to 1903.

By whom owned: The City of Lowell.

Source of supply: Two hundred ten (210) driven wells in the
valley of River Meadow Brook, and three hundred forty-
five (345) driven wells at Pawtucket Boulevard.

Mode of supply: Pumping to reservoir and pumping direct.

PUMPING STATISTICS.

1. Builders of Pumping Machinery.

AT WEST SIXTH STREET STATION.

One engine, capacity 5,000,000 gals. in 24 hours, Henry
G. Morris.

One engine, capacity 5,000,000 gals. in 24 hours, Henry
R. Worthington.

One engine, capacity 500,000 gals. in 24 hours, Henry R. Worthington.

One engine, capacity 10,000,000 gals. in 24 hours, Henry R. Worthington.

AT COOK WELLS STATION, TEMPORARY PUMPS.

One engine, capacity 3,000,000 gals. in 24 hours, The Deane Steam Pump Co.

One engine, capacity 3,000,000 gals. in 24 hours, The Deane Steam Pump Co.

AT LOWER BOULEVARD STATION.

One engine, capacity 3,000,000 gals. in 24 hours, Knowles Steam Pump Works.

One engine, capacity 8,000,000 gals. in 24 hours, The Holly Manufacturing Co.

AT UPPER BOULEVARD STATION, TEMPORARY PUMPS.

One engine, capacity 3,000,000 gals. in 24 hours, Henry R. Worthington.

One engine, capacity 3,000,000 gals. in 24 hours, Henry R. Worthington.

2. Description of fuel used:

{	<ol style="list-style-type: none"> a. Kind, bituminous. b. Brand of coal, New River and Pocahontas. c. Average price of coal per gross ton, delivered, \$4.44 + d. Percentage of ash. e. Wood, price per cord.
---	---
3. Coal consumed for the year 5,546,723 pounds.
 (Low Service, West Sixth Street Station, 2,729,375 pounds.)

4. (Pounds of wood) \div 3 = equivalent amount of coal
= 2,400, West Sixth Street Station.
5. Total equivalent coal consumed for the year = (3) + (4),
5,549,123 pounds. (Low Service, West Sixth Street
Station, 2,731,775 pounds.)
6. Total pumpage for the year, 1,909,792,832 gallons.
(Low Service, West Sixth Street Station, 1,567,826,560
gallons.)
7. Average static head against which pumps work, 156.78
feet, West Sixth Street Station.
8. Average dynamic head against which pumps work, 163.67
feet, West Sixth Street Station.
9. Number of gallons pumped per pound of equivalent coal
(5), 344. (Low Service, West Sixth St. Station, 574.)
10. Duty = $\frac{\text{Gallons pumped (6)} \times 8.34 \text{ (lbs.)} \times 100 \times \text{dynamic head (8)}}{\text{Total fuel consumed (5)}}$
= 78,340,873. West Sixth Street Station, Low Service.
Cost of pumping figured on pumping station expenses,
viz.: \$31,103.61.
11. Per million gallons pumped, \$16.29—. Low Service.
12. Per million gallons raised one foot (dynamic), \$0.0995 +
Low Service, West Sixth Street Station.

FINANCIAL STATISTICS.

RECEIPTS.		EXPENDITURES.	
From Water Rates,		Overdraw in 1908	\$ 7,637.49
A. Fixture Rates	\$ 23,964.98	Water Works Maintenance,	
B. Meter Rates	163,053.40	A A. Operation (Manage-	
C. Total from Consumers ...	\$187,018.38	ment and Repairs) \$118,333.70	
F. For Street Watering	1,500.00	C C. Total Maintenance.	118,333.70
G. For Public Buildings	4,034.46	D D. Interest	44,571.00
J. Total from Municipal Depts.	5,534.46	(C C + D D) ...	162,904.70
K. From Tax Levy	17,800.00	E E. Payment of Loans.	15,200.00
M. From Other Sources	20,165.31	F F. Sinking Fund	17,800.00
		Water Works Construction,	
		G G. Extension of Mains	10,714.90
		H H. Extension of Services	5,236.08
		K K. Total Construction	15,950.98
		L L. Unclassified Expenses	10,018.34
		Balance	1,006.64
N. Total	\$230,518.15	N. Total	\$230,518.15

O. Net Cost of Works to Date	\$3,151,863.88
P. Bonded Debt at Date	1,106,400.00
Q. Value of Sinking Fund to Date	584,580.62
R. Average Rate of Interest, four per cent.	

STATISTICS OF CONSUMPTION OF WATER.

1. Estimated total population at date, 96,380.
2. Estimated population on lines of pipe, 96,380.
3. Estimated population supplied, 96,380.
4. Total consumption for the year, 1,912,740,525 gallons.
5. Passed through meters, 993,016,015 gallons.
6. Percentage of consumption metered, 51.9.
7. Average daily consumption, 5,240,385 gallons.
8. Gallons per day to each inhabitant, 54.37.
9. Gallons per day to each consumer, 54.37.
10. Gallons per day to each tap, 426.
11. Cost of supplying water, per million gallons, figured on total maintenance (item C C.), \$61.86.
12. Total cost of supplying water, per million gallons, figured on total maintenance + interest on bonds, \$85.17.

STATISTICS RELATING TO DISTRIBUTION SYSTEM.

MAINS.

1. Kind of pipe, cast iron.
2. Sizes, 4 inches to 30 inches.
3. Extended 9,965 feet during the year.
5. Total now in use, 143.44 miles.
8. Length of pipe less than 4 inches diameter, 2 miles, more or less.
9. Number of hydrants added during the year (public and private), 15.
10. Number of hydrants (public and private) now in use, 1321.
11. Number of stop gates added during the year, 49.
12. Number of stop gates now in use, 1558.
13. Number of stop gates smaller than 4 inches, 31.
14. Number of blow-offs, 34.
15. Range of pressure on mains, 17 lbs. to 72 lbs., Low Service.

SERVICES.

16. Kind of pipe, lead, lead-lined iron, iron and tin-lined iron.
17. Sizes, $\frac{5}{8}$ " to 2".
18. Extended 7,046 feet.
20. Total now in use, 91.97 miles.
21. Number of Service Taps added during the year, 190.
22. Number now in use, 12,307.
23. Average length of service, 36.9 feet.
24. Average cost of service for the year, \$27.56.
25. Number of meters added, 328.
26. Number now in use, 9,465.
27. Percentage of services metered, 76.9.
28. Percentage of receipts from metered water ($B \div C$), 87.19.

The State Board of Health has made analyses of water each month from the Merrimack River (for record only), wells at Pawtucket Boulevard and Low Service Reservoir, a record of which is annexed.

Respectfully submitted,

GEORGE BOWERS,

City Engineer.

COMMONWEALTH OF MASSACHUSETTS.—STATE BOARD OF HEALTH.
LOWELL WATER ANALYSIS—MERRIMACK RIVER. (Parts in 100,000.)

No.	Date of		Appearance		Odor		Residue on Evaporation		Ammonia			Chlorine		Nitrogen as		Hardness	Iron	Oxygen Consumed	
	Collection	Examination	Turbidity	Sediment	Color	Cold	Hot	Total	Loss on Ignition	Fixed	Free	Total	In Solution	In Suspension	Nitrates				Nitrites
76,387	1909 January 27-28		slight	cons.	.33	faintly unpleasant	distinctly unpleasant	3.85	1.50	2.35	.0144	.0168	.0144	.0024	.30	.0100	.0001	1.7	.58
76,805	February 24-25		slight	cons.	.42	faintly unpleasant	distinctly unpleasant	3.85	1.95	1.90	.0052	.0164	.0112	.0052	.18	.0040	.0001	1.3	.80
77,265	March April 31-1		slight	slight	.44	faintly unpleasant	faintly unpleasant	3.20	1.30	1.90	.0056	.0186	.0148	.0038	.17	.0020	.0001	0.8	.70
77,701	April 28-29		slight	slight	.35	faintly unpleasant	distinctly unpleasant	2.30	1.10	1.20	.0006	.0140	.0112	.0028	.13	.0040	.0001	1.0	.54
78,134	May 25-26		slight	cons.	.43	faintly unpleasant	faintly unpleasant	3.10	1.55	1.55	.0068	.0158	.0126	.0032	.18	.0040	.0001	1.3	.60
78,799	June July 30-1		slight	cons.	.39	faintly veg. & unpleasant	distinctly veg. & unpleasant	4.15	2.00	2.15	.0140	.0228	.0176	.0052	.25	.0030	.0002	1.0	.54
79,238	July 21-22		slight	slight	.31	faintly vegetable	faintly vegetable	4.70	2.15	2.55	.0158	.0182	.0134	.0048	.38	.0000	.0002	1.3	.68
79,877	August 18-19		slight	slight	.32	faintly unpleasant	faintly unpleasant	3.70	1.65	2.05	.0168	.0256	.0170	.0086	.38	.0000	.0001	1.3	.58
80,810	September 24-27		v. slight	slight	.26	faintly vegetable	distinctly veg. & unpleasant	5.0	2.05	3.00	.0182	.0184	.0152	.0032	.32	.0010	.0000	1.7	.80
81,491	October 21-22		slight	slight	.27	v. faintly veg. & unpleasant	faintly veg. & unpleasant	4.35	2.15	2.20	.0174	.0212	.0168	.0044	.33	.0030	.0002	1.7	.56
82,103	November 18-23		slight	slight	.33	faintly unpleasant	faintly unpleasant	9.00	4.30	4.70	.0286	.0214	.0168	.0046	.48	.0040	.0004	2.0	.90
82,806	December 22-24		slight	slight	turbid .40	faintly unpleasant	distinctly unpleasant	5.15	1.90	3.25	.0190	.0212	.0178	.0034	.38	.0070	.0001	2.0	.68



MACHINE SHOP AND SUPERINTENDENT'S OFFICE—Hampshire Street

COMMONWEALTH OF MASSACHUSETTS.—STATE BOARD OF HEALTH.
LOWELL WATER ANALYSIS—BOULEVARD WELLS. (Parts in 100,000.)

No.	Date of		Appearance		Odor		Residue on Evaporation		Ammonia			Chlorine	Nitrogen as		Hardness	Iron	Oxygen Consumed			
	Collection	Examination	Turbidity	Sediment	Color	Cold	Hot	Total	Loss on Ignition	Fixed	Free		Total	In solution				In suspension	Nitrates	Nitrites
76,388	January 27	1909 28	slight iron	cons. iron	fil. .33	none	none	5.10	.....	.....	.0186	.0052	.....	.....	.38	.0060	.0000	2.3	.2000	....
76,806	February 24	25	slight iron	cons. iron	fil. .40	none	none	5.50	.....	.....	.0190	.0048	.....	.....	.33	.0050	.0001	2.6	.2000	....
77,266	March 31	April 1	v. slight	slight	.15	none	none	4.80	.....	.....	.0072	.0038	.....	.....	.33	.0050	.0001	2.5	.0580	....
77,702	April 28	29	slight iron	cons. iron	fil. .36	v. faintly unpleasant	v. faintly unpleasant	5.80	.....	.....	.0250	.0038	.....	.....	.33	.0040	.0007	2.5	.1600	....
78,136	May 25	26	slight iron	cons. iron	.36	none	none	5.50	.....	.....	.0260	.0050	.....	.....	.30	.0050	.0002	2.6	.1500	....
78,801	June 30	July 1	slight	cons.	fil. .27	v. faintly unpleasant	faintly unpleasant	6.80	.....	.....	.0148	.0070	.....	.....	.23	.0000	.0003	2.0	.1200	....
79,239	July 21	22	v. slight	v. slight	.08	none	none	5.40	.....	.....	.0050	.0028	.....	.....	.26	.0120	.0000	2.3	.0180	....
79,878	August 18	19	v. slight	none	.01	none	none	5.60	.....	.....	.0310	.0038	.....	.....	.17	.0000	.0000	2.6	.0180	....
80,809	September 24	27	decided iron	cons. iron	fil. .42	none	faintly unpleasant	5.20	.....	.....	.0220	.0078	.....	.....	.35	.0050	.0001	2.6	.1500	....
81,492	October 21	22	decided iron	cons. iron	fil. .40	none	v. faintly unpleasant	5.30	.....	.....	.0312	.0058	.....	.....	.35	.0020	.0000	2.2	.2500	....
82,104	November 18	23	slight iron	slight iron	.18	none	v. faintly unpleasant	5.20	.....	.....	.0144	.0064	.....	.....	.32	.0010	.0001	2.2	.0700	....
82,850	December 23	27	decided iron	cons. iron	.35	v. faintly unpleasant	faintly unpleasant	5.60	.....	.....	.0344	.0068	.....	.....	.40	.0180	.0000	2.6	.2400	....

COMMONWEALTH OF MASSACHUSETTS.—STATE BOARD OF HEALTH.
LOWELL WATER ANALYSIS—RESERVOIR. (Parts in 100,000.)

No.	Date of		Appearance			Odor		Residue on Evaporation		Ammonia			Chlorine		Nitrogen as		Iron	Oxygen Consumed
	Collection	Examination	Turbidity	Sediment	Color	Cold	Hot	Total	Loss on Ignition	Fixed	Free	Total	In Solution	In Suspension	Nitrates	Nitrites		
76,389	January 27	1909 28	slight	slight	fl. .22	none	none	5.70	.....	.....	.0132	.0040	.....	.....	.0100	.0001	2.5	.0940
76,807	February 24	25	slight	slight	fl. .27	none	none	5.70	.....	.....	.0138	.0052	.....	.....	.0140	.0001	2.6	.0800
77,247	March 31	April 1	slight	slight	.25	none	none	6.00	.....	.....	.0154	.0042	.....	.....	.0160	.0001	2.6	.0700
77,703	April 28	29	slight	slight	fl. .20	v. faintly unpleasant	v. faintly unpleasant	5.80	.....	.....	.0162	.0060	.....	.....	.0150	.0003	2.6	.0500
78,135	May 25	26	slight iron	slight iron	.22	none	none	5.80	.....	.....	.0172	.0056	.....	.....	.0180	.0003	2.6	.0540
78,800	June 30	July 1	slight	v. slight	.15	none	none	8.40	.....	.....	.0176	.0070	.....	.....	.0160	.0002	2.6	.0440
79,240	July 21	22	v. slight	v. slight	.08	none	none	5.50	.....	.....	.0024	.0054	.....	.....	.0200	.0003	2.0	.0160
79,879	August 18	19	none	none	.06	none	none	4.00	.....	.....	.0012	.0050	.....	.....	.0060	.0002	2.6	.0080
80,882	September 28	29	slight	slight	.24	v. faintly unpleasant	faintly unpleasant	4.40	.....	.....	.0136	.0104	.....	.....	.0080	.0001	2.2	.0460
81,499	October 22	23	decided	slight	fl. .20	v. faintly unpleasant	faintly unpleasant	5.50	.....	.....	.0222	.0096	.....	.....	.0040	.0001	2.2	.0650
82,105	November 18	23	slight iron	slight iron	.20	none	none	6.30	.....	.....	.0158	.0058	.....	.....	.0050	.0001	2.0	.0400
82,807	December 22	24	slight iron	slight iron	.35	none	none	6.40	.....	.....	.0272	.0072	.....	.....	.0100	.0003	2.2	.1200

Superintendent's Report

LOWELL, MASS., January 1, 1910.

To the Lowell Water Board:

GENTLEMEN:—I have the honor to present, in compliance with the City Ordinances, the annual report of the Superintendent of Water Works for the year ending December 31, 1909.

The quantity of water consumed during the year is slightly less than during the previous year, and the receipts show a small gain over the previous year. In other words, the consumption of water and the amount received for the same have run along very evenly in 1909 as compared with the year 1908. This fact points to the controlling influence which meters exert over the proper use of water and in preventing its waste.

The expenditures of the year show a material reduction as compared with the previous year, which fact, taken together with the slight increase in receipts, makes a very creditable financial showing.

A further analysis of the receipts for water shows that 87% was derived from metered water, while only 75% of the supplies are metered. This goes to prove

that many of the services still on fixture rates are not paying for all the water used by them. The number of metered accounts is 9,466, accounts based on fixture rates, 2,125.

QUALITY OF THE WATER.

Early in the year several water-takers on Tenth Street and in Belvidere on the High Service complained that the water had a disagreeable taste and odor. On January 7th samples of water drawn from various taps on Tenth Street gave forth a swampy or vegetable odor, and, although perfectly clear, had an unmistakably tart or sharp taste. Water taken directly out of the High Service Reservoir had the same taste and odor. Believing that the trouble was due to Algae which remained in the reservoir from the previous summer, it was thought best to gradually lower the reservoir and draw out as much of the old water as possible.

A thin coating of ice which had formed on the surface was thoroughly broken by rowing a boat through it several times. This was done to expose the water to the action of the air. In eight days fresh water was again pumped into the reservoir, filling it from twelve feet to its regular depth. This remedy proved effective, and no further complaint was heard from this cause.

During the summer and well into the fall, reports of roilly and rusty water from water-takers on the Low Service System were so common that it became a serious matter. Blowing out the street mains,

although removing considerable sediment, failed to give relief. At this time, the water in the Low Service Reservoir showed quite a degree of turbidity, and the water as delivered from the wells, was not as clear as normally. This indicated that there was a rise in the quantity of iron in the well water, and the Report of the monthly analysis made by the State Board of Health, confirmed the fact. Two consecutive years of a low rainfall, with a consequent diminution in the quantity of ground water, was felt to be the principal cause. The fact that many of the first wells driven were more or less clogged by rust and sand, was also taken into consideration.

To afford a remedy in this direction, fifty of the oldest and worst wells were pulled up and new wells driven to replace them. The new wells were placed four feet farther from the suction main than those removed, expecting that, by so doing, they would be located in new material and that less iron in the water would result.

Test wells were also driven in different parts of the land owned by the City, and in adjacent land. The purpose of this move was to ascertain the possibility of increasing the amount of water to be obtained by additional wells. That such a step was justified can be readily understood when, during March, five million gallons daily was the most that could be pumped at the Lower Boulevard Station, and this, notwithstanding that the wells had been recently and thoroughly cleaned. The result of these test wells showed that the supply might be increased.

In order not to draw too hard upon the Boulevard Wells, and probably still further increase the iron contents of the water, the Cook and Hydraulic Wells were drawn upon twice during the year. The first time from April 7th to April 18th. For four days, at this time, the Boulevard Wells were shut off and given a rest. As a result, when they were again started, six million gallons was obtained per day as against five million gallons per day in March. On June 26th, the Cook and Hydraulic Wells were again brought into use, and continued in use until September 18th, delivering daily an average of 3,500,000 gallons into the city main. Probably complaints of rusty water were more numerous during this period than before, especially in the section of the City supplied by the Cook and Hydraulic Wells. This, of course, was due to the pumping of the water directly into the mains, and proved very conclusively that this supply would never be satisfactory until this condition of forcing the water in at one end of the pipe system against the reservoir water entering at the other end, was changed. While the Cook and Hydraulic Wells were in operation, they were very thoroughly scraped and cleaned so that they were in good condition.

Amongst other things done in an effort to improve the water, a gang of men was employed for four days, from October 11th to the 14th, cleaning the conduit and tunnel. Never were so much pains taken in this work, and at no time, to my knowledge, were the Conduit, Tunnel, Syphon, Gate Chambers, etc., which convey the water from the Boulevard to the Central-

ville Station, so perfectly and thoroughly cleaned as they were on that occasion. Not a single nook, cranny or crevice in the rocky sides or roof of the tunnel but was scraped and washed clean. Every foot of the line that could possibly be reached in any way was given a cleaning process. The Syphon at Beaver Brook was flushed out through the manhole on the east side of the Brook under full head of water from the Conduit, and the pump well at the Centralville Station was also carefully scrubbed and washed. Aside from the cleaning found necessary, the Conduit, etc., were otherwise found to be in good condition with the exception of a small leak found in the brick work under Second Avenue. This was repaired and the leak stopped.

Although, while the Cook Wells Plant was running, the Boulevard Wells were subjected to only a light draft and for several days at a time were not used at all, yet the water in the reservoir and that which came from it, remained turbid. This led to the inspection of every well and shutting off those which were found to contain iron. Detecting the presence of iron by the color or odor, sixty-eight wells were thus discontinued temporarily, after which, in a few days, the water became clearer, then perfectly clear and remained so while the wells were off. Most of the wells shut off for this purpose were on the section east of the Boulevard Lower Station.

Judging from the information obtained by the test wells, three hundred new wells might be driven on a line northerly of the present wells. This would involve about ten thousand feet of suction pipe from

fourteen inch to twenty inch in diameter together with several hundred well fittings, at a probable cost for material of five thousand (\$5,000.00) dollars including a new connection with pumps from the front of the Station which would be necessary. Should the rainfall of the coming year return to normal, this work could be postponed, but to do so might be unwise.

PUMPING STATIONS.

The Upper Boulevard Pumping Station was operated for forty-seven days, from July 10th to August 27th, pumping during that period 142,249,802 gallons or about 3,000,000 gallons daily. Nothing in the line of repairs at this Station was needed.

At the Boulevard Lower Station, the Holly Pump did first rate-service. Only minor repairs and alterations were made on the boilers and piping.

A new Generating Set for lighting purposes is ordered for this Station from the Engbergs Electric and Mechanical Works of St. Joseph, Mich., and will be ready for installation early the coming year. In preparation for this Generating Set, the office has been enlarged to twice its original size to provide a convenient place for its operation. The quantity of water pumped was 1,483,563,978 gallons, 519,839,384 gallons more than was pumped the previous year. The total pumpage of both Boulevard Stations was only 3,199,814 gallons more than in 1908.

At the Cook Wells Pumping Station 341,966,272 gallons were pumped during the year, 60,871,936 gallons or 17% more than the previous year. The air pumps at this Station came in for slight repairs and a

new steam piston was placed in No. 2 Dean Pump, costing for material \$114.56 and labor \$111.00. In consequence of the recommendation of the Boiler Inspector, \$296.00 was paid Scannell Boiler Works for retubing No. 3 Boiler. The old tubes were pitted and quite thin. Owing to this Station being shut down so much, it will be found difficult to preserve the tubes from attack on account of dampness and moisture.

Keeping up the Pumping Machinery at the Centralville Pumping Station cost for labor over \$500.00, and for material, about \$300.00. Labor and material cost on the Morris Engine alone was \$600.00 and that without being able to get any real continuous service out of the engine. It would certainly be in the interest of economy to replace the Morris with an up-to-date pump. The saving in the cost of repairs alone would pay a good interest on the cost of a new pump, not to speak of the reduced cost of operation.

The Low Duty Worthington, as its name indicates, is costly to operate but in the matter of repairs, very little is required. The High Duty called for the expenditure of \$134.37 for labor in the line of repairs. The High Service Pump was given a thorough overhauling at a labor cost of \$95.00. The feed water heater formerly used at the Boulevard Lower Station was installed at the Centralville Station with good results, heating the feed water from 90 to 190 degrees Fahrenheit. The Pumpage at the Station for the year was 1,909,792,832 gallons, just 12,548,864 gallons or about two days' supply less than the previous year of 1908.

COAL.

The most gratifying result obtained in connection with the conduct of the Department the past year was the greatly reduced expenditure for coal. The average annual outlay for coal the past ten years, including 1909, was \$21,391.86, while last year only \$8,895.30 was paid for coal; or, comparing the cost of coal last year and in 1908, viz.: \$19,460.50, shows a decrease of \$10,565.20. A larger amount than that expended last year will be necessary the coming year, as a considerable part of the coal bought the previous year was left over. So a fairer comparison would be in the basis of the amount actually consumed last year, which was 2,877 long tons against 3,508 tons the previous year, a saving of 631 tons. Carrying the comparison along to 1907, before the Holly Pump was installed at the Boulevard, when 4,201 tons were used, shows a difference of 1,324 tons of coal more than was burned last year.

Most of the reduction in coal consumption was due to the increased economy in operating the Holly Pump at the Boulevard Pumping Station. Practically the same quantity of water was pumped at the two Boulevard Stations last year as in the previous year, while only 515 tons of coal were used last year against 1,026 tons the year previous when the Holly Pump was run only about one-half the year; and 1,884 tons in 1907, the year before it was installed.

Heating the boiler feed water at the Centralville Pumping Station by the use of the Feed Water Heater,

taken from the Boulevard Lower Station, accounts for a great part of the saving at that Station. Without question also the purchase of the coal needed on the heat unit basis, accompanied by analysis of the same for Ash, Sulphur, Moisture, etc., as recommended by your honorable body, was responsible for the good showing in the coal bill, for, by that method of purchasing, a better grade of coal was secured, free from excessive ash and moisture and of a higher calorific value.

For the coming year it might be well to consider the purchase of a Calorimeter so the Department could test the coal and save the expense of sending it away for that purpose. A Bomb Calorimeter suitable for this work would cost \$285.00 complete, including thermometer, oxygen tank, coal grinder, weighing balances, etc.

Anything the Department can do in the way of decreasing the quantity of fuel used is a move in the right direction. Considerable has been accomplished in the past two years but a still further and material reduction in coal consumption and consequent saving in expenditures can be made by the installation of a new Pumping Engine at the Centralville Station.

DISTRIBUTING MAINS.

During the year the distributing mains were extended 9,965 feet, which was 3,350 feet more than was extended the previous year. In addition, 5,470 feet of main pipe was taken up and replaced by pipe

of larger diameter, or relaid on new lines. This latter work was done where the old location of the main interfered with sewer construction, etc.

On Varnum Avenue, between Mammoth Road and Starbird Street, 1,369 feet of 8" pipe was relaid on account of sewer work. All but 195 feet of the old pipe was removed. That lies under the Street Railroad track from Mammoth Road running westerly. It is not in use and should be taken up.

The replacing of the 6" main on Varnum Avenue from Starbird Street to Dunbar Avenue, as per your vote, for the purpose of improving the Lowell General Hospital supply, was the largest pipe-laying job of the year, calling for 2,791 feet of 8" pipe. In doing this work, the 6" main between Starbird Street and a point just west of Brookside Street was found so deep down under the Street Railroad track, due to the raising of the street grade since the pipe was first laid, that it was deemed best to continue it in use as it would cost more than it was worth to remove it, and it might as well be used to help out the 8" main. So that part of the street, a distance of 701 feet, has two mains, an 8" and a 6", both connected together and properly gated so they can be shut off, one from the other. The balance of the 6" pipe to Dunbar Avenue was practically all removed. A section of 8" pipe from Starbird Street running northerly on Varnum Avenue to the end of the sewer was connected to new 8" main at that point, making a double line of 8" pipe for part of the street.

Another extensive piece of relaying was that on Rogers Street from Berkeley Avenue to Warrenville Avenue, replacing 1,437 feet of 6" with 10" pipe for the purpose of strengthening the fire service at Warrenville.

The erection of a new mill by the Merrimack Manufacturing Company in their front yard between Dutton and Worthen Streets made necessary the removal of the 20" Corporation line from their yard and from the lower end of Worthen Street and laying it along Dutton Street 459 feet to nearly the end of their front block, and then through the block to Worthen Street, a further distance of 277 feet, connecting again with the 20" main in that street. On Dutton Street the 20" main took the place of the 6" main previously in use there; and on Worthen Street, where the 20" pipe was taken up, 6" pipe was laid in the same trench so as to supply two houses and a hydrant formerly served from the 20" main.

Two long extensions of main pipe was made on the High Service System, one of 1,243 feet of 8" pipe on Andover Street to the city line, the other on Clark Road to Albert O'Heir's house, 1,116 feet of 6" pipe. Many of the extensions for the purpose of connecting "Dead Ends" which you voted, have been attended to. Those not done, should be early in the spring. This work makes for gridironing the street pipes and is a benefit in many ways.

SCHEDULE OF DISTRIBUTION MAINS IN SERVICE,
JANUARY 1, 1910.

Low Service.		High Service.
4 inch	35,100 feet	1,785 feet
6 "	432,419 "	27,509 "
8 "	131,197 "	4,748 "
10 "	25,682 "	4,119 "
12 "	61,545 "	7,873 "
16 "	10,998 "	
20 "	5,832 "	
24 "	3,992 "	
30 "	4,563 "	
	<hr/>	<hr/>
	711,328 feet	46,034 feet
Total High and Low Service Pipe		757,362 feet
Total High and Low Service Pipe in miles		143.44

BREAK IN FORCE MAIN.

On March 9th, a 24" x 24" x 24" Y, connecting two branches of the 24" Force Main and situated in the lawn of the Centralville Pumping Station, broke and, before the gates could be shut off, the lawn was badly torn up and the loam and soil carried off by the flood of water which poured out of the break. An inspection showed that this Y which was laid in 1891 was of an inferior design, without ribbing or sufficient thickness to withstand extraordinary pressure. As a consequence, during a time of excessive strain, the whole top of the casting lifted off like a cover. Fortunately the break did not embarrass the Department owing to the fact that the 30" force main was not effected. The sewer in West Sixth Street, owing to the great influx of water from the break, backed up into several cellars, and had to be cleaned out by the Department, but otherwise little damage was done to neighboring property.

A new Y of the globe pattern built by the Builders' Iron Foundry, according to blue print furnished by the City, was set in place of the broken one, April 8th. Cost of repairing break, for new Y and 24" Sleeve of special inside diameter was \$270.81, labor, etc., \$196.78; total cost, \$467.59.

HYDRANTS.

During the year eighteen hydrants were taken out and replaced by others as follows: 7 flush, 7 Michigan, 2 Chapman, 1 Fairbanks and 1 Ludlow. The Ludlow and Chapman will be reset, but the others are unfit for use.

Fifteen new hydrants were set and two discontinued, one Flush and one Lowry, leaving an increase in the total of 13. Two hundred eighty-seven hydrants were repaired. Cost of hydrants, gates, etc., was \$3,175.61.



FELS PARK, RIVERSIDE STREET

HYDRANTS, JANUARY 1, 1910.

KIND	Flush	2 Noz.	3 Noz.	4 Noz.	Total Noz.
Boston Machine			171		171
Chapman		3	102	51	156
Coffin			1		1
Corey			37		37
Eddy			32	1	33
Fairbanks			20		20
Flush	350				350
Glanmorgan			1		1
Holyoke				1	1
Kennedy			1		1
Lowrey .....10					10
Ludlow		3	397	14	414
Michigan			18		18
O'Brien			1		1
A. P. Smith			1		1
Perkins				1	1
Walker			17		17
Totals .....10	350	6	799	68	1,233

HYDRANTS CHANGED, 1909.

TAKEN OUT	SET	STREET
Michigan	Boston Post	D
"	" "	Farmland Road
"	Ludlow	Bellevue
"	"	Mt. Hope
"	"	Old Ferry Road
"	"	Dalton
"	"	Sayles
Chapman	Corey	Georgia Ave.
"	Ludlow	Cheever
Fairbanks	Corey	Mt. Hope
Ludlow	"	Riverside
Flush	"	Butterfield
"	Ludlow	Opp. Sargent
"	"	" 114 School
"	Chapman	" 94 "
"	Ludlow	Bowers
"	"	Mt. Washington
"	"	Salem

FIRE SERVICES.

Published with this report is a revised list of connections made with the mains for the purposes of private fire service, such as supplying water for automatic sprinklers, etc.

During the year, only one new fire service was laid, viz.: United Worsted Co., Howe Street, cor. Davidson Street, 6" pipe. On this was placed a 6" Hersey Detector Meter. Three fire services were cut off at the main, as follows: B. & M. Freight Depot, Western Avenue, 4" pipe; Massachusetts Mohair Plush Co., Western Avenue, 6" pipe; Melvin Bancroft Co., Chelmsford, cor. New Fletcher Street, 2" pipe.

Eight services, heretofore listed as fire services, owing to their now being used for ordinary service, have been taken from the fire service list. Meters have been placed on three old fire services as follows: C. I. Hood & Co., Thorndike Street, 6" Hersey Detector; Wamesit Power Co., Stackpole Street, 4" Hersey Detector; Wamesit Steam Mills, Cushing Street, 2" Crown Meter. The following fire services have been changed: Keith's Theatre, from 4" to 6" pipe; Lowell General Hospital, from 4" to 6" pipe, and the 6" fire service of the U. S. Cartridge Co., Lawrence Street, has been changed in location so that it now enters the front of the main building instead of the end of the building as formerly. This service was also extended beyond the meter to the Heinze Electric Co.

As revised, there are now 38 fire services metered and 85 still unmetered, a total of 123 services now used and supplied with city water for private fire protection.

LIST OF UNMETERED FIRE SERVICES.

JANUARY 1, 1910.

SIZE	OWNER	LOCATION	DEVICE
4"	Allen's Brick Mill	Rock & Willie	Auto. sprinklers and tank
2"	Am. Hyde & Leather Co.	Howe	Standpipes
2"	American House	Central	Standpipes
6"	American House (Talbot's Store)	Warren	Automatic sprinklers
6"	American Safety Tread Co.	Perry	Automatic sprinklers
2"	American Wire Goods Co.	Mt. Vernon	Standpipe
6"	Appleton Bank Bldg.	Central (Fr. Warren)	Automatic sprinklers
6"	Associate Bldg	Merrimack (Fr. Worthen)	Automatic sprinklers
2"	Bachelor Bung. Factory	Mt. Vernon	Standpipe
6"	Bagshaw, W. H. Est.	Wilson	1 hydt. and standpipe
6"	Barker, H. R. Mfg. Co.	Middle	Auto. sprinklers—tank
6" } 8" }	One system, Bel. Woolen Co.	2 Lawrence	Hydrants, sprinklers, standpipes
4"	B. & M. R. R. Co.	Western Ave.	Standpipe
4"	B. & M. R. R. Co.	Jackson	1 hydrant
6"	B. & M. R. R. Co.	Thorndike	1 hydrant
6"	B. & N. St. Ry. Co. (Car barn)	Bradley	Hydrant and standpipes
6"	Bon Marche Bldg.	Merrimack	Auto. sprinklers
6"	A. L. Brooks & Co.	Fletcher	1 hydrant
4"	Bartlett Grammar School	Wannalancit	Standpipes
2"	Cady, George L. & Son	Western Ave.	Outside sprinklers
4"	Cady, George L. & Son	Western Ave.	No connection
4"	Central Block	Central	Standpipes
6"	Central Block (Chalifoux Store)	Middle	Auto. sprinklers
4"	Cheney, F. P. (Box Shop)	St. Hyacinth	Auto sprinklers—standpipes
10"	City Farm	Chelmsford	Hydrants—standpipes
4"	City Fire Station	Middle	1 hose connection
6"	City School—Varnum	Sixth	Standpipes
6"	City Stables	Broadway	1 hydt., 2 standpipes for filling watering carts
6"	City Stables	Lagrange	
2"	Cole & Nichols (Foundry)	Dutton & Willie	1 by-pass (sealed) to roof
4"	Coburn, Walter	Congress	1 hydrant—standpipes
4"	Coram, Joseph A.	West Adams	Auto. sprinklers and tank
6"	Corporation Hospital	Merrimack & Pawtucket	1 hydt. and standpipes
4"	City Hall	Merrimack	Standpipes
4"	City Memorial Bldg.	Merrimack	Inside cellar wall—no connection
4"	Clark Machinery Co.	Perrin (Shut off)	1 hydrant and standpipes
6"	Colonial Bldg.	Merrimack & Central	Auto. sprinklers and tank
4"	Davis & Sargent	Middlesex	Standpipes—shut off
4"	Cahn & Grant (Opera House)	Central	1 standpipe—stage curtain
3"	Fay Bros. & Hosford	Central	Standpipes
6"	Fifield Tool Co.	Marginal	Dry sprinkler system
4"	Gould, Charles	Payne	Auto. sprinklers—Shut off

LIST OF UNMETERED FIRE SERVICES.—Continued.

SIZE	OWNER	LOCATION	DEVICE
6"	Gilbride's Store	Merrimack (Fr. Palmer)	Auto. sprinklers
4"	Greenwood & Payton	Waldo	Auto. sprinklers, standpipes —Shut off
4"	Harris, George W.	Perkins	Auto. sprinklers
6"	Harvard Brewing Co.	Payton	2 hydrants in yard
4"	Hathaway Theatre	Shattuck	2 standpipes on stage
4"	High School Bldg.	Anne & Kirk	Standpipes
4"	High School Annex	John	No connection for fire
4"	Hildreth Bldg.	Merrimack	Auto. sprinklers and standpipes
4"	Huntington Hall	Shattuck	Shut off—building burned
4"	Lowell Water Works	Hampshire	Standpipes
6"	Keith's Theatre	Bridge	No connection in cellar
4"	Lowell Water Works	Jewett	Standpipes
8"	Lawrence Mfg. Co.	Coolidge	1 hydrant in yard
4"	Lowell Inst. for Savings	Shattuck	Auto. sprinklers
1½"	Lowell Gas Light Co. Office	Shattuck	Standpipes, outside sprks.
4"	Lowell Gas Light Co.	Rock	1 hydrant in yard
4"	Lamson Cons. S. S. Co.	Walker (Front Mill)	Auto. sprinklers
4"	Lamson Cons. S. S. Co.	Walker (Rear Mill)	Auto. sprinklers
2"	Lowell Hosiery Co.	Broadway	Standpipes
8"	Lowell Textile School	Moody & Falmouth	Auto. sprinklers, 1 standpipe, 1 hydrant
4"	Lowell Textile Co.	West Adams	Auto. sprinklers
6"	Lowell General Hospital	Varnum Ave.	1 hydrant, standpipes
4"	McEvoy, C. H.	Broadway	Auto. sprinklers
6"	Meyer, John C. (Pickering Mill)	Middlesex	Auto. sprinklers
4"	Mdsx. Odd Fellows Bldg.	Middlesex	Standpipes
6"	Parker, J. M. G. Est.	Middle	Auto. sprinklers and tank
2"	Pollard, A. G. & Co.	Merrimack	Outside sprinklers
6"	Pilling Shoe Factory	Schaffer	Auto. sprinklers
6"	Riley, P. J.	Tanner (Dry system)	Auto. sprinklers
6"	Shaw Machine Co.	Middlesex	Yard hydrants
4"	St. Peter's Church	South	Standpipes
6"	St. John's Hospital	Bartlett	Elevator
4"	State Normal School	Broadway	Standpipes
6"	Standard Paper Tube Works	Tanner	Auto. sprinklers
6"	Thorndike Mfg. Co.	Thorndike	Auto. sprk. and standpipes
6"	Thompson's Box Shop	Lawrence	1 hydt., auto. sprk. and tank
8"	Tremont & Suffolk Mills	Hall (Store House)	Auto. sprks. (dry system)
6"	Tremont & Suffolk Mills	Tanner	Auto sprinklers, 1 hydrant
2-2"	U. S. Bunting Co.	Lawrence	Standpipes (Services from Chambers St.)
1-1"			Standpipe—by-pass sealed
2"	U. S. Government Post Office	Gorham	1 outside hose connection
2"	Walsh's Mill	Washer	Inside cellar, no connection
4"	Wheelock, A. C.	157 Middlesex	Not connected, shut off
4"	Wiggin, W. H. Est.	Rockingham	

NEW SERVICES—1909.

NUMBER	KIND	FEET
141	$\frac{3}{4}$ " iron tin-lined pipe	5,210
18	1" " " "	644
10	$\frac{3}{4}$ " iron pipe	417
4	1" " "	222
2	3" " "	54
3	1" galvanized iron pipe	70
3	$1\frac{1}{2}$ " " " "	47
5	2" " " "	173
1	4" cast iron pipe	45
3	6" " " "	164
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190		7,046
Total previously laid		478,610 ft.
Total now laid		485,656 "
Total service laid		13,145 "
Total cut off at main		915 "
Total reconnected		77 "
Total now in use		12,307 "

Exactly the same number of services were laid the last year as in the year previous, and practically the same amount of pipe was laid both years. The work of changing or renewing old services was considerably in excess of the previous year. In all, 278 services or 9,178 feet of old service pipe was replaced with new. This amounts to 3,976 feet more than was changed in 1908. Besides the services renewed, many old services were also cleaned and repaired. Cost of service pipe, boxes, etc., was \$5,374.92.

SERVICES CHANGED—1909.

No.	KIND	CHANGED TO							Total Feet
		Tin Lined $\frac{3}{4}$ "	Tin Lined 1"	Galv. Iron $\frac{3}{4}$ "	Galv. Iron 1"	Galv. Iron $1\frac{1}{2}$ "	Galv. Iron 2"	Cast Iron 6"	
162	$\frac{3}{4}$ " iron	4948							4948
9	$\frac{3}{4}$ " "			262					262
7	$\frac{3}{4}$ " "		318						318
24	1" "		899						899
41	1" "	1545							1545
2	1" "			48					48
1	1" "				87				87
1	1" "				49				49
2	1" "					78			78
1	$1\frac{1}{2}$ " "					17			17
1	$1\frac{1}{2}$ " "	29							29
1	2" "						38		38
1	2" "				99				99
1	4" "							6	6
1	$\frac{3}{4}$ " L. L. Iron	38							38
1	$\frac{3}{4}$ " T. L. "	6							6
1	$\frac{3}{4}$ " T. L. "					93			93
1	$\frac{3}{4}$ " T. L. "		22						22
1	1" T. L. "						30		30
4	$\frac{5}{8}$ " lead	119							119
1	$\frac{5}{8}$ " "				26				26
5	$\frac{3}{4}$ " "		146						146
1	$\frac{3}{4}$ " "					30			30
3	$\frac{3}{4}$ " "	85							85
2	1" "	60							60
1	1" "		40						40
1	1" "						55		55
1	1" "					5			5
278	Totals	6830	1425	310	261	223	123	6	9178

METERS.

The total number of meters running has been increased during the year from 9,148 to 9,465, a gain of 317 for the year. Of the total number in use at the beginning of the year, 703 or 7% were taken out for repairs, and twenty-six of those taken out were condemned as unfit for further use.

I believe all the meters in use for ten years consecutively should be taken out and overhauled, as, no doubt, many of them are falling far short of registering the amount of water passing through them. The increase of income derived from meters thus overhauled and readjusted would pay for the expense incurred.

Were it not for the large number of meters in service, the consumption of driven well water, at times during the year, might have exceeded the supply available; as it was, the consumption compared with the previous year was reduced from 1,921,634,322 gallons to 1,912,740,525 gallons, making 8,893,797 gallons less; and in the daily average consumption, from 5,250,367 to 5,240,385 gallons, about 10,000 gallons per day less.

METERS RUNNING JANUARY 1, 1910.

SIZES	$\frac{1}{8}$ in.	$\frac{3}{8}$ in.	1 in.	1 $\frac{1}{2}$ in.	2 in.	3 in.	4 in.	6 in.	8 in.	Total
Columbia.....	109	4								113
Crown	3042	1629	325	24	37	6	5	5		5073
Desper.....	14	4	3							21
Duplex	1	1	3							5
Empire	266	45	10	5	6	2				334
Frost		1								1
Gem.....					7		5	1		13
Hersey	1156	172	16	9	4	1	1			1359
Hersey Detector ..							5	20	4	29
Keystone ...	41									41
King	71	3								74
Lambert	733	85	4		1					823
Nash	491	113	55		2					661
Niagara	1									1
Thomson....	5	19	2							26
Torrent						1	2			3
Trident	550	30	1	1						582
Union	28	7		1						36
Worthingt'n	66	4	41	43	35	5	3			197
Worth-Disc. .	74									74
Total ..	6648	2117	460	83	92	15	21	26	4	9466

PRIVATE METERS RUNNING JANUARY 1, 1910.

SIZES	$\frac{3}{8}$ in.	$\frac{5}{8}$ in.	$\frac{3}{4}$ in.	1 in.	$1\frac{1}{2}$ in.	2 in.	Total
Columbia		9					9
Crown	1	29	24	2	2		58
Desper			3	1			4
Duplex		1					1
Empire		6				1	7
Frost		1	1				2
Hersey		38	4			1	43
King		1					1
Lambert		18					18
Nash		23	2			1	26
Thomson			1				1
Trident			6				6
Worthington				1		3	4
Worth-Disc.		1					1
Total	1	127	41	4	2	6	181

Net meters set	328
Meters out for repairs	703
" reset	655
" condemned	26
" " replaced with new	37
" repaired in cellars	294
" frozen and burst	70
" discontinued	11
Private meters set	7.

MISCELLANEOUS.

A new 30" Fifield Lathe was added to the Shop equipment during the year.

A new departure for the Department was the making of small iron castings in its own Foundry. 3,263 lbs. of these were made for the year in addition to 5,464 lbs. of brass castings.

One new horse was purchased for the stable. The small fence at the Reservoir was painted. The Parks of the Department were kept up in the usual artistic manner. The drinking fountains, both large and small, were maintained clean and in good repair. Nineteen private sewers were flushed. The coal scales at the Centralville Station were rebuilt. Considerable grading and filling was done at the Pipe Yard, and a large part of the coal bin floor at Cook Wells Pumping Station was concreted. A multitude of other jobs in the way of repairs and renewals too numerous to mention were done during the year.

With a deep sense of the support and co-operation of the President and members of the Board, this report is respectfully submitted.

ROBERT J. THOMAS,
Superintendent.

DRINKING FOUNTAINS SET PREVIOUS TO THE YEAR 1909.

Street	LOCATION	Man	Beast	Man and Beast
Adams.....	2 ft. north of south line Adams St., on East line Suffolk St.....		1	....
Andover.....	11.5 ft. south of north line Andover St., 44 ft. east of east line Nesmith St.....			1
Branch.....	7.5 ft. south of north line Branch St., 14 ft. west intersection with Middlesex St.....			1
Bridge.....	10.3 ft. west of east line Bridge St., 41 ft. north of north line First St.....			1
Broadway.....	7.5 ft. south of north line Broadway, 48 ft. east of east line School St.....			1
Broadway.....	7.5 ft. south of north line Broadway, 62 ft. west of west line Dummer St.....			1
Cabot.....	8 ft. west of east line Cabot St., 25 ft. south of south line Merrimack St.....			1
Davis Sq.....	56 ft. south of north line Davis Sq., 25 ft. west of west line Gorham St.....			1
Dover.....	7 ft. west of east line Dover St., 10 ft. north of north line Branch St.....			1
Fletcher.....	6 ft. west of east line Fletcher St., 14 ft. north of north line Dutton St.....	1		....
Fletcher.....	On west line Fletcher St., at intersection east line Willie St.....			1
Gorham.....	7.5 ft. east of west line Gorham St., 11 ft. north of south line Dix St.....			1
Gorham.....	On west line Gorham St., on intersection east line Carlisle St.....	1		....
Hampshire.....	6.5 ft. west of east line Hampshire St., 19.5 ft. south of angle at Bridge St.....			1
Hosford Sq.....	76 ft. west of east line Hosford Sq., on north line Wamesit St.....		1	....
Hosford Sq.....	10.5 ft. east of west line Hosford Sq., 12.5 ft. south of south line Elm St.....	1		....
Lakeview Ave....	5.5 ft. north of south line Lakeview Ave., 5.5 ft. east of east line Aiken St.....			1
Lakeview Ave....	On north line Lakeview Ave., and west line of Sladen St.....			1
Lawrence.....	7 ft. east of west line Lawrence St., 26 ft. north of north line Andrews St.....			1
Lincoln Sq.....	6 ft. west of east line Lincoln Sq., 27 ft. south of south line Lincoln St.....			1

DRINKING FOUNTAINS SET PREVIOUS TO THE YEAR 1909—Continued.

Street	LOCATION	Man	Beast	Man and Beast
Mammoth Road .	45 ft. west of east line Mammoth Road on north line Riverside St. ....	.....	1	.....
Mammoth Road .	6 ft. west of east line Mammoth Road, 8 ft. north of north line Riverside St.	1	.....	.....
Merrimack sq.	14.5 ft. south of north line Merrimack Sq., 10.5 ft. east of east line Bridge St.	1	.....	.....
Merrimack	5.8 ft. north of north line Merrimack St., 5 ft. south of south line Moody	1	San- itar	.....
Middlesex	9 ft. north of south line Middlesex St., 17 ft. west of west line Gorham St. ....	.....	.....	1
Middlesex	11.5 ft. north of south line Middlesex St., 31 ft. east of west line Baldwin St. ....	.....	.....	1
Powell	6 ft. east of west line Powell St., 111 ft. north of north line Plain St. ....	.....	.....	1
Rogers.....	7 ft. north of south line Rogers St., 8.5 ft. west of west line Concord St. ....	.....	.....	1
Salem	7 ft. south of north line Salem St., 24.5 ft. east of east line Pawtucket St. ....	.....	.....	1
School ...	15 ft. east of west line School St., 9.5 ft. south of north lin line Liberty St. ....	.....	.....	1
Shattuck	9 ft. east of west line Shattuck St., 16 ft. south of south line Middle St. ....	.....	.....	1
Westford.....	4.5 ft. north of south line Westford St., 40 ft. east of intersection with Pine St. ....	.....	.....	1
DRINKING FOUNTAINS SET DURING 1909.				
Lawrence	5 ft. south of north line Lawrence St., 84 ft. west of west line Morton St. ....	.....	.....	1

LOW SERVICE—LIST OF HYDRANTS SET DURING THE YEAR 1909.

Streets	LOCATIONS *Indicates location changed or hydrant changed
*Bowers	Flush to Post Hydrant. South side, location changed from opp. east line Mt. Vernon St., to 7ft. east of same.
*Butterfield	Flush to Post Hydrant. South side, 1 foot east of east line of Mt. Vernon St.
*Circuit Ave.	North side, location changed from opposite west line Chamberlain St., to opposite east line Felton St.
*Com'w'lth Ave. . .	North side, location changed from 175 ft. west of west line Lowell St., to 4.5 ft. west of same.
*Corey	West side, location changed from 201 ft. south of south line Princeton St., to 433 ft. south of same.
Dracut	North side, 247 ft. west of west line of Fourth Ave.
*Dutton	Flush to Post Hydrant. West side 282 ft. south of south line Merrimack Mfg. Co., front yard.
*Foster.	East side, location changed from 638 ft. south of south line Middlesex St., to 748 ft. south of same.
Gates	East side, 143 ft. south of south line of Sheldon St.
*George Ave. . . .	West side, location changed from 230 ft. south of south line Tyler Park to 415 ft. south of same.
Greendale Ave. . .	West side, 271 ft. south of south line of Hale St.
Howe Court. . . .	North side, 124 ft. east of east line of Thorndike St.
Lang	West side, 31 ft. north of north line of Inland St.
*Merr'k Mfg. Co. .	Front yard, location changed from 85 ft. west of west line Dutton St., to 6 ft. west of same.
*Merr'k Mfg. Co. .	Front yard, Lowry hydrant on west line Dutton St. removed.
Mt. Pleasant . .	East side, 60 ft. north of north line Reservoir St.
*Mt. Washington .	Flush to Post Hydrant. West side, on south line of Bowers St.
*Payton	East side, location changed from 354 ft. south of south line Plain St., to 269 ft. south of same.
*Riverside	Location changed from west to east side, 11 feet north of north line Moody St.
*Salem	Flush to Post Hydrant. North side, 11 ft. west of east line of Whiting St.
*School	Flush to Post Hydrant. East side, 47 ft. north of north line of Butterfield St.



LOWER BOULEVARD PUMPING STATION

LOW SERVICE—LIST OF HYDRANTS SET DURING THE
YEAR 1909—Continued.

Streets	LOCATIONS *Indicates location changed or hydrant changed
*School	Flush to Post Hydrant. East side, location changed from 181 ft. north of north line Bowers St. to 171 ft. north of same.
*School	Flush to Post Hydrant. East side, 41 ft. north of 1st angle in street south of Pawtucket St.
*State	West side, location changed from 513 ft. south of south line Moore St., to 643 ft. south of same.
Totman Road .	East side, 412 ft. north of north line Varnum Ave.
Varnum Ave. . .	North side, 86 ft. west of east line of east driveway Lowell General Hospital.
Victor	East side opposite Beaulieu St.
Victor	East side opposite Boisvert St.
*Worthen	East side, location changed from 502 ft. north of north line of R. R. location to 506 ft. north of same.
*Worthen	West side, flush hydrant near office Merrimack Mfg. Co. removed.

HIGH SERVICE—LIST OF HYDRANTS SET DURING
YEAR 1909 and LOCATIONS.

Streets	LOCATIONS
Aberdeen	West side, 411 ft. north of north line of Tenth St.
Andover	North side, opposite west line Harland Ave.
Andover	North side 109 ft. east of east line Wetherbee Ave.
Andover	North side at City line.
Clark Road . . .	West side 26 ft. south A. E. O'Heir's house.

LOW SERVICE—LOCATION AND SIZE OF MAIN PIPES REMOVED IN 1909.

Streets	LOCATIONS	Length of pipe in feet						Total
		4 in.	6 in.	8 in.	10 in.	16 in.	20 in.	
Arlington	Bowers St., northerly, replaced by 6" pipe.	50						50
Bowers	Arlington St., easterly, replaced by 6" pipe.	53						53
Bridge	Fire Service Keith's Theatre, replaced by 6" pipe.	18						18
Dutton	Southerly from Merrimack Mfg. Co. front yard to end Brick Block.		460					460
Mt. Vernon	Northerly from Broadway, replaced by 6" pipe.	15						15
Powell	Northerly from Smith St., to D St., replaced by 8" pipe.		39					39
Rogers	Easterly from Berkeley Ave., to Warrenville Ave., replaced by 10" pipe.		1437					1437
Varnum Ave.	Mammoth Road to new sewer manhole, discontinued, to be removed.			195				195
Varnum Ave.	Removed from new sewer trench			886				886
Varnum Ave.	9 ft. west of west line Brookside St., to Dunbar Ave.		1706					1706
Varnum Ave.	Service Lowell General Hospital, replaced by 6" pipe.	327						327
Western Ave.	16.5 ft. west of east end B. & M. R. R. Freight House.	15						15
Worthen	Northerly to angle at Merrimack Mfg. Co. office, and easterly to Dutton St.					31	561	592
		478	3642	1081		31	561	5793

LOW SERVICE—LIST OF STOP GATES SET DURING THE YEAR 1909.

Streets	LOCATIONS	4 in.	6 in.	8 in.	10 in.	12 in.	16 in.	20 in.
Arlington	14.6 ft. west of east line of Arlington St., on north line of Bowers St.		1					
Arlington	24 ft. east of west line of Arlington St., on south line of Pawtucket St.		1					
Bridge	16.5 ft. west of east line of Bridge St., 3 ft. north of north line Eleventh St.		1					
Bridge	10 ft. west of east line of Bridge St., on north line of Tenth St.		1					
Bridge	Fire Service Keith's Theatre, 14.7 ft. west of east line Bridge St., 18 ft. south of north side of theatre		1					
Bridge	Supply Mass. Cotton Mills, 34.6 ft. west of east line Bridge St., 104 ft. south of river		1					
Bowers	3 ft. north of south line Bowers St., on east line Fletcher St.		1					
D	12.5 ft. south of north line D St., on west line Powell St.		1					
Dalton	12 ft. south of north line Dalton St., on west line Ennell St.			1				
Dartmouth	12 ft. west of east line Dartmouth St., on south line Princeton St.			1				
Davenport East	12 ft. north of south line Davenport St. East, 15 ft. west of east line of Florence Ave.		1					
Dracut	12 ft. south of north line Dracut St., on west line Fourth Ave.		1					
Dutton	10.5 ft. east of west line Dutton St., 12.8 ft. north of south line Merrimack Co. front yard			1				
Dutton	18 ft. east of west line Dutton St., opp. south line Merrimack Co. front yard							1
Dutton	18 ft. east of west line Dutton St., 6.5 ft. north of south end long brick block		1					
Dutton	20.5 ft. east of west line Dutton St., 49 ft. south of north line Moody St.			1				
Emery	12 ft. north of south line Emery St., on east line Lang St.		1					
Fletcher	17 ft. west of east line Fletcher St., on south line Bowers St.					1		
Foster	13.5 ft. west of east line Foster St., on south line Princeton St.		1					

LOW SERVICE—LIST OF STOP GATES SET DURING THE
YEAR 1909—Continued.

Streets	LOCATIONS	4 in.	6 in.	8 in.	10 in.	12 in.	16 in.	20 in.
Howe Court	10 ft. south of north line Howe Court, 12 ft. west of east line Thorndike St.	1						
Howe	Fire Service 8 ft. east of west line Howe St., 52.5 ft. south of north side U. S. Worsted Co. bldg	1						
Inland	10 ft. north of south line Inland St., 15 ft. east of west line Chelmsford St.	1						
Litchfield Terrace	3 ft. north of south line Litchfield Terrace, 2 ft. east of east line Walker St.	1						
Lombard	11 ft. south of north line Lombard St., on west line Mt. Vernon St.	1						
Lowell General Hospital	16 ft. south of north line Varnum Ave., 54 ft. east of east line Magnolia St.	1						
Midland	20 ft. south of north line Midland St., 15 ft. east of west line Chelmsford St.		1					
Moody	Fire Service Lowell Textile School, 19 ft. north of south line Moody St., 161 ft. west of west line Colonial Ave.	1						
Mt. Vernon	19.7 ft. east of west line Mt. Vernon St., on north line Broadway	1						
Nesmith	22 ft. west of east line Nesmith St., on north line Sherman St.	1						
Porter	12 ft. south of north line Porter St., on west line Nesmith St.	1						
Porter	12 ft. south of north line Porter St., on west line Huntington St.	1						
Powell	29.3 ft. east of west line Powell St., 1.5 ft. south of south line D St.		1					
Read	18.5 ft. west of east line Read St., on north line of Third St.	1						
Reservoir	13 ft. south of north side Reservoir St., on east line Christian St.	1						
Rogers	10 ft. south of north line Rogers St., opposite east line Butman Road		1					
Rogers	16 ft. south of north line Rogers St., opposite east line Berkeley Ave.		1					
Salem	16 ft. south of north line Salem St., on west line Willie Ave.	1						
School	12 ft. east of west line School St., on south line Shaw St.	1						

LOW SERVICE—LIST OF STOP GATES SET DURING THE YEAR 1909—Continued.

Streets	LOCATIONS	4 in.	6 in.	8 in.	10 in.	12 in.	16 in.	20 in.
Shaw Machine Co.	18.5 ft. south of south side bldg., 15.8 ft. east of southeast corner main bldg.	1						
Sherman	12 ft. south of north line Sherman St., on west line Nesmith St.	1						
Smith	29.5 ft. west of east line Smith St., 1.5 ft. north of south line D St.	1						
Stevens	14 ft. east of west line Stevens St., on north line Middlesex St.	1						
U. S. Cartridge Co.	Fire Service, 1 ft. west of west face U. S. Cartridge Co. bldg., 86.5 ft. south of north end same	1						
U. S. Cartridge Co.	Fire Service 1 ft. west of west face U. S. Cartridge Co. bldg., 89.5 ft. south of north end same	1						
Varnum Ave.	13 ft. south of north line Varnum Ave., 51.6 ft. west of east lot line No. 89	1						
Varnum Ave.	13 ft. south of north line Varnum Ave., opposite east line Starbird St.	1						
Varnum Ave.	13 ft. south of north line Varnum Ave., opposite west line Starbird St.	1						
Varnum Ave.	17 ft. south of north line Varnum Ave., opposite east line Brookside St.	1						
Varnum Ave.	19 ft. south of north line Varnum Ave., opposite east line East Driveway to Lowell General Hospital	1						
Varnum Ave.	19.5 ft. south of north line Varnum Ave., opposite east line West Driveway to Lowell General Hospital	1						
Varnum Ave.	14.5 ft. south of north line Varnum Ave., 40 ft. west of east lot line No. 113	1						
Varnum Ave.	18.2 ft. south of north line Varnum Ave., 13.5 ft. west of west line Brookside St.	1						
West	23 ft. north of south intersection with west line Coburn St., on west line Coburn St.	1						
Western Ave.	18 ft. north of south line Western Ave., opposite hydrant, 71 ft. west of west side Mohair Plush Co. bldg., cross over	1						
Worthen	25.5 ft. west of east line Worthen St., 283 ft. north of north line R. R. location	1						
Worthen	Location changed from 390 ft. north of R. R. location to 270 ft. north of same, 24 ft. east of west line of street							1
Worthen	24 ft. east of west line Worthen St., 270 ft. north of north line R. R. location							1

HIGH SERVICE—LIST OF STOP GATES SET DURING YEAR 1909.

Streets	LOCATIONS	4 in.	6 in.	8 in.	10 in.
Andover	20 ft. south of north line Andover St., on east line Harland Ave.....		1		
Birch	12 ft. east of west line Birch St., on north line of Fairmount St.		1		
Clark Road	6.7 ft. east of hydrant opp. L. T. Trull's house, 3 ft. south of same		1		

LOW SERVICE—LIST OF SMALL STOP GATES FOR W. I. STREET MAINS SET DURING THE YEAR 1909.

Street	LOCATION	$\frac{1}{2}$ in.	1 in.	1 $\frac{1}{2}$ in.	2 in.
Wesley Ave.	5 ft. west of east line Wesley Ave., on north line Pine St.				1

LOW SERVICE STOP GATES REMOVED DURING THE YEAR 1909.

Streets	LOCATIONS	4 in.	6 in.	8 in.	10 in.	12 in.	16 in.	20 in.
Arlington	14.6 ft. west of east line Arlington St., on north line Bowers St.	1						
Bridge	Fire Service Keith's Theatre 14.7 ft. west of east line Bridge St., 18 ft. south of north side theatre	1						
Merrimack Co. Front Yard	Hydrant gate opposite Merrimack Co.'s Office ..	1						
Mt. Vernon.....	Blow-off gate at Broadway	1						
Powell	18 ft. east of west line Powell St., 20 ft. south of north line D St.	1						
Rogers.....	13 ft. south of north line Rogers St., 25.5 ft. west of east line Butman Road	1						
Rogers.....	17 ft. south of north line Rogers St., opposite west line Berkeley Ave.	1						
Western Ave.	6 ft. south of south side B. & M. R. R. freight house 16.5 ft. west of east end same	1						
Worthen	24 ft. west of east line Worthen St., 97 ft. south of south line Merrimack Co. front yard—hydrant gate	1						

LOW SERVICE—LIST OF FIRE SERVICE METER AND CHECK VALVES SET IN 1909.

Corporations	LOCATIONS	Fire Meters	Check Valves
C. I. Hood & Co. Laboratory	1 ft. west of east side basement, 9.5 ft. south of north wall of same.	6" Detector	. . . . .
Wamesit Power Co.	Stackpole St., 4 ft. south of south side of building, 79.5 ft. east of west side of same	4" Detector	. . . . .
U. S. Worsted Co.	50 ft. south of north wall of basement, 3.5 ft. west of east wall of same.	6" Detector	. . . . .

LOW SERVICE—LIST OF FIRE SERVICE METERS AND CHECK VALVES REMOVED
OR CHANGED IN 1909.

Corporations	LOCATIONS	Fire Meters	Check Valves
U. S. Cartridge Co.	Removed, 2.7 ft. south of north wall in northwest corner main building.....	.....	6 inch
U. S. Cartridge Co.	Location changed 2.4 ft. south of north wall basement 2.5 ft. east of same.....	6" Detector	.....

LOW SERVICE, SMALL SIZE, DISTRIBUTION PIPES LAID IN 1909.

Street	LOCATION	1 in.	1½ in.	2 in.				Total
Wesley Ave.	Extended northwesterly			132.5				132.5

HIGH SERVICE WATER PIPE LAID IN 1909.

Streets	LOCATIONS	4 in.	6 in.	8 in.	10 in.	16 in.	20 in.	Total
Aberdeen	Extended northwesterly .....	.....	280	.....	.....	.....	.....	280
Andover	Extended easterly to City Line .....	.....	36	1243	.....	.....	.....	1279
Birch	Extended northerly to connect with 6" pipe .....	.....	308	.....	.....	.....	.....	308
Clark Road	Extended southeasterly .....	.....	1116	.....	.....	.....	.....	1116
		.....	1740	1243	.....	.....	.....	2983

LOW SERVICE WATER PIPE LAID IN 1909.

Streets	LOCATIONS	Length of Pipe in Feet						Total
		4 in.	6 in.	8 in.	10 in.	16 in.	20 in.	
Arlington	Extended northerly from Bowers St.		50					50
Boisvert	Extended easterly to Victor St.		41					41
Bowers	Extended easterly from Arlington St.		53					53
Bridge	Supply Massachusetts Cotton Mills		50					50
Bridge	Fire Service Keith's Theatre, replacing 4 inch pipe		18					18
Broadway	Blow-off extension into Pawtucket Canal		40					40
Circuit	Extended easterly from Chamberlain St. to Fulton St.		252					252
Coburn	Extended southerly from near Hildreth St. to connect with 6" pipe		271					271
Commonwealth Ave.	Extended easterly to Lowell St.		170					170
Corey	Extended southerly to City line		232					232
Crawford	Extended northwesterly from Sixth Ave. to connect with 6" pipe.		98					98
D	Extended westerly to connect with 6" pipe		190					190
Dalton	Extended northwesterly to connect with 6" pipe			191				191
Dartmouth	Extended southerly from Princeton St. to connect with 6" pipe			176				176
Davenport East.	Extended westerly from Florence Ave. to connect with 6" pipe.		146					146
Dracut	Extended northwesterly from Fourth Ave.		314					314
Dutton	Extended northeasterly from Merrimack St. to connect with 6" pipe			127				127
Dutton	Extended northwesterly from Merrimack Mfg. Co. front yard to end of brick block						459	459

LOW SERVICE WATER PIPE LAID IN 1909—Continued.

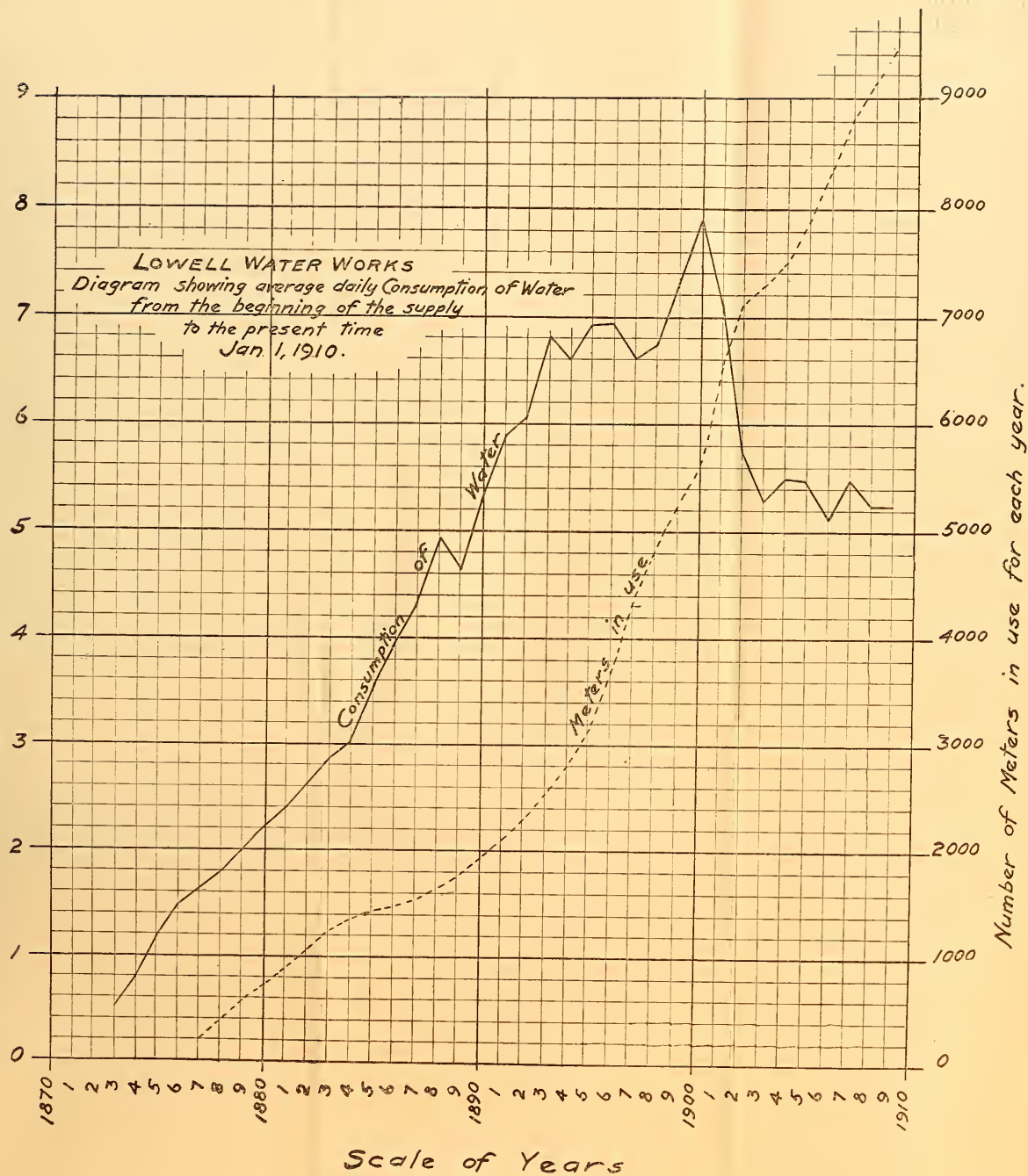
E	Extended easterly from School St.	139	.....	.....	139
Eighteenth	Extended westerly from Beacon St.	110	.....	.....	110
Emery	Extended easterly from Lang St. to connect with 6" pipe ..	115	.....	.....	115
Foster	Extended southerly from Princeton St. to connect with 6" pipe ..	93	.....	.....	93
Foster	Extended southerly to change hydrant	6	.....	.....	6
Gates	Extended southerly	66	.....	.....	66
Georgia Ave.	Extended southerly to Ashland St.	151	.....	.....	151
Greendale Ave.	Extended southerly	126	.....	.....	126
Howe Court	Extended easterly from Thordike St.	128	.....	.....	128
Howe	Fire service United States Worsted Co.	18	.....	.....	18
Inland	Extended westerly from Chelmsford St. to connect with 6" pipe ..	144	.....	.....	144
Lang	Extended northerly to Emery	122	.....	.....	122
Lawrence	Fire service United States Cartridge Co.	127	.....	.....	127
Litchfield Terrace	Extended easterly and westerly from Walker St.	244	.....	.....	244
Livingston	Extended northerly and westerly	90	.....	.....	90
Lombard	Extended westerly from Mt. Vernon St.	40	.....	.....	40
Merrimack Mfg. Co.	Cross over from Dutton St. to Worthen St.	227	227	.....	227
Merrimack Mfg. Co.	Front yard—extended northwesterly from Dutton St.	30	30	.....	30
Midland	Extended westerly from Chelmsford St. to connect with 6" pipe ..	146	.....	.....	146
Moody	Fire service Lowell Textile School	96	.....	.....	96
Mt. Pleasant	Extended northerly from Reservoir St.	77	.....	.....	77
Mt. Vernon	Extended northerly from Broadway, replacing 4" pipe	15	.....	.....	15

LOW SERVICE WATER PIPE LAID IN 1909.—Continued.

Porter	Extended westerly from Nesmith St. to connect with 6" pipe	189	.....	.....	.....	189
Porter	Extended easterly from Fort Hill Ave. to Huntington St.	177	.....	.....	.....	177
Powell	Extended from Smith to D St., replacing 6" pipe .....	.....	39	.....	.....	39
Read	Extended from Third St. to Fourth St.	206	.....	.....	.....	206
Reservoir	Extended easterly from Christian St. to Mt. Pleasant St.	474	.....	.....	.....	474
Rogers	Extended from Berkeley Ave. to Warrenville Ave., replacing 6" pipe	.....	1437	.....	.....	1437
Sargent	Extended easterly from Phillips St. to connect with 6" pipe.	101	.....	.....	.....	101
Sherman	Extended easterly from Hanks St. to Nesmith St.	249	.....	.....	.....	249
Stackpole	Fire service Lowell Shoe Co.	24	.....	.....	.....	24
State	Extended easterly	130	.....	.....	.....	130
Stevens	Extended northerly from Middlesex St. to connect with 8" pipe ..	.....	192	.....	.....	192
Totman	Extended easterly for hydrant	6	.....	.....	.....	6
Varnum Ave.	Laid from Mammoth Road to Dunbar Ave. ....	.....	3713	.....	.....	3713
Varnum Ave.	Service, Lowell General Hospital, replacing 4" pipe	327	.....	.....	.....	327
Victor	Extended easterly opposite Beaulieu St. for hydrant	23	.....	.....	.....	23
Victor	Extended easterly opposite Boisvert St. for hydrant	23	.....	.....	.....	23
Worthen	Extended northerly from cross over to cross over .....	.....	.....	.....	31	31
Worthen	Extended northerly from cross over to hydrant	246	.....	.....	.....	246
		6153	4468	1437	717	12775

High Service laid in 1909	2,983 feet	
High Service previous to 1909.....	43,051 "	
		<hr/>
Total High Service in use Jan. 1, 1910	46,034 feet	
Total Low Service in use Jan 1, 1910	711,328 "	
		<hr/>
Total High and Low Service to Jan. 1, 1910	757,362 feet	
Total pipe in use to Jan. 1, 1910, in miles	143.44	
Low Service laid in 1909	12,775 feet	
Low Service previous to 1909	704,346 "	717,121 feet
		<hr/>
Low Service pipes removed in 1909 (deduct)	5,793 "	
		<hr/>
Total Low Service in use Jan. 1, 1910	711,328 feet	

Average Consumption in Million Gallons per day for each year.



High S
High S

Total F
Total L

Total E

Total p

Low Se
Low Se

Low Se

Total L

CITY OF LOWELL



1910 REPORT OF THE COMMITTEE ON APPROPRIATIONS.

CITY HALL, LOWELL, MASS., February 1, 1910.

TO THE CITY COUNCIL:—

The Joint Committee on Appropriations, to whom were referred the various estimates for the year 1910, has attended to the business committed to it and

REPORT:

Your Committee started its meetings on the same date as did the Committee of last year, and was able to reduce by four the number of sessions held. Careful, painstaking attention was given to every item in the various estimates and the despatch with which the business was transacted was due principally to two things,—first, that the Committee was composed

largely of men who had seen previous service, and secondly that the deliberations were conducted with perfect harmony and with the single purpose of using the taxpayers' money to the best possible advantage. The new men on the Committee proved themselves particularly well fitted for the work at hand. We might state that the problem before the Committee this year has been the same as that presented every year,—department estimates always being many thousands larger than the amounts that can be given. In the cutting down process care must be taken to reduce in the places which will stand it without crippling and this precaution has been at all times uppermost in our minds. It is a matter of genuine regret that Lowell's revenue does not apparently keep pace with its growing needs, but this being the fact, the City is placed in the position of an individual who is obliged to keep his expenses within his income.

We have recommended for every department an amount which we believe ample for the entire year if economy in all directions is practiced and we feel sure that with our efficient department heads our confidence will not be misplaced. His Honor, Mayor Meehan, has taken a great interest in the work and has promised to cooperate with us in keeping department expenses where they should be kept. We publicly make this announcement so that heads of departments will realize that official extravagance will not only counter-balance the good that we are trying to do but will also place in jeopardy their own official positions.

It is a deplorable fact that more than one previous Committee on Appropriations has spread money with

a lavish hand in some directions and has usually given the School Department a partial appropriation with a full understanding that a loan of \$100,000., or more, would be necessary for current expenses before the end of the year. In this way the Fixed Charges are heavily increased and succeeding administrations find themselves compelled to pay not only their own bills but a part of those of previous years. Last year's record proves that the City can live within its income, for not a cent was borrowed for current expenses. This was due solely to the watchful care of the City Council. Heads of departments, if inclined at all to overrun appropriations, knew that drastic measures would without hesitancy be taken and to their credit it may be said they were duly cautious. The few appropriations that proved insufficient were in departments which were powerless to prevent it and in those cases the cause was not that which for years was responsible for the need of more money,—deliberate extravagance and neglect. All other things being equal, the amounts we have recommended will result in a decrease in the tax rate of about ten cents this year and a few years of paying current expenses with current revenue and the elimination of unnecessary loans will give to the City of Lowell a tax rate that will not be a burden to any citizen.

The total department estimates for the year 1910 amounted to \$1,579,575.02 and the total money available for use was \$1,396,069.02, showing a cut necessary of \$183,506., which amount was heavier by over \$48,000. than last year. In addition, your Committee

cut enough to leave over \$8,000. in the General Treasury Fund.

We desire to commend the work of the present Board of Health in its efforts to keep death and disease at the lowest possible limit and to place the City of Lowell in the very front rank from a sanitary point of view. Certainly this board has been a working board from the start and composed as it is of three busy professional men, it has already established a record which can never be excelled. For this the Committee bespeaks the hearty gratitude and support of all our citizens.

The Park and Cemetery Commissions have closed another year and added to the laurels which are justly theirs. Again we find ample cause for congratulating them and know they will continue the good work.

Your Committee has seen fit to ask the City Solicitor to draw an ordinance providing that the Water Department shall make no charge for water furnished to other city departments. Under existing laws, this department has exclusive handling of its income and even if it had a large surplus the other departments could not be benefited in any way. The annual expense of water to other departments is a heavy item and the amount if saved would pay for many improvements that now seem impossible. In addition to this, the Water Department expenses would be decreased because it would be deprived of just so much available money. All things considered, we believe the proposed ordinance would be excellent and timely legislation.

ESTIMATED REVENUE, 1910.

Total City Valuation for 1909, deducting abate- ments	\$78,743,668 30	
Multiply by \$12 per \$1,000 of valuation	12 00	
	<hr/>	\$944,924 02

OTHER REVENUES.

Balance Jan. 1, 1910.....	\$ 9,900 00	
Buildings	2,400 00	
Charity (Hospital)	1,700 00	
Charity (Outdoor Relief) .	3,000 00	
City Cemeteries	8,500 00	
City Clerk	2,000 00	
City Sealer	470 00	
City Treasurer	1,000 00	
City Weigher	100 00	
Corporation Tax	106,000 00	
Excise Tax	9,100 00	
Fire	50 00	
Health	6,700 00	
Incidentals	3,400 00	
Inspector of Milk.....	125 00	
Interest	30,000 00	
Liquor Licenses	175,000 00	
Military Aid, etc.....	19,000 00	
Moth Extermination	5,000 00	
National Bank Tax	3,700 00	
Park	1,000 00	
Police	11,000 00	
School	7,000 00	
Sewer Construction	10,000 00	
Street	5,000 00	
Street Railway Tax	10,000 00	
Watering Streets	20,000 00	
	<hr/>	451,145 00
Total Estimated Revenue		<hr/> \$1,396,069 02

Summary of Department Expenses and Estimates—Amount Recommended by Committee on Appropriations.

	1909 Expense	1910 Estimate	Committee Recommends
Assessors	\$ 12,887 65	\$ 13,893 40	\$ 12,800 00
Auditor	5,105 60	5,335 00	4,990 00
Buildings	42,536 41	26,226 75	20,000 00
Charity (Hospital)	49,174 86	52,939 85	49 000 00
Charity (Outdoor Relief) ..	27,230 09	29,745 83	26,000 00
City Cemeteries	7,523 09	9,590 00	7,500 00
City Clerk	5,916 56	6,597 08	6,436 33
City Messenger	17,923 21	18,806 75	18,000 00
✓ City Sealer	2,199 42	2,324 00	2,222 00
City Treasurer	11,307 00	11,604 00	11,082 00
✓ City Weigher	806 68	810 00	810 00
✓ Clerk of Committees	1,549 90	1,600 00	1,600 00
✓ Clerk of Common Council .	300 00	300 00	300 00
✓ Elections	9,102 62	9,200 00	9,000 00
Engineering	13,701 66	7,000 00	6,300 00
✓ Fire	150,530 85	170,825 31	163,000 00
Fish Warden	40 00	40 00	40 00
✓ Grade Crossings	372 60		
Health (Office)	13,779 92	16,863 75	14,000 00
Health (Yard)	42,566 41	43,766 00	40,500 00
✓ Incidentals	2,418 39	2,405 00	1,800 00
✓ Insurance	2,924 11	3,600 00	3,500 00
✓ Inspector of Animals	510 00	510 00	510 00
✓ Inspector of Milk	2,424 25	2,804 25	2,454 25
Inspector of Wires	2,523 60	2,526 00	2,526 00
Law	6,614 27	6,552 31	5,628 00
Library	14,896 27	20,000 00	15,000 00
Liquor Licenses	43,138 00	43,138 00	43,138 00
Lighting	97,642 75	99,354 83	98,000 00
Mayor	4,359 35	4,400 00	4,350 00
Park	27,777 44	40,282 75	25,300 00
✓ Pound Keeper	5 00	5 00	5 00
Police	146,209 91	157,484 96	151,165 71
Registrars	4,725 09	4,990 00	4,500 00
✓ Rifle Range	798 56	1,546 00	926 00
School	378,779 71	388,000 00	378,000 00
Schoolhouses	66,188 72	41,299 00	22,000 00
Sewer Maintenance	22,941 82	25,510 50	15,000 00
✓ Sewer Construction	57,669 62		
State Aid	38,589 29	39,200 00	35,000 00
Street	244,627 61	236,479 50	159,000 00
Supply	6,631 54	7,133 95	6,530 00
Watering Streets	17,408 67	24,885 25	20,000 00
Water Works	211,711 51		
Totals	\$1,816,070 01	\$1,579,575 02	\$1,387,913 29

LIMIT OF INDEBTEDNESS.

Limit of Municipal Debt for 1910, 2½ per cent. on \$77,079,032.22 (average valuation for last three years)			\$1,926,975 81
Total City Debt, January 1, 1910		\$3,472,604 20	
Deduct Water Loans	\$1,106,400 00		
Deduct exemptions by Legislature	800,000 00	1,906,400 60	
City Debt as it relates to limit of indebtedness .			1,566,204 20
Distance from Debt Limit, January 1, 1910			\$ 360,771 61

FIXED CHARGES.

	1909	1910	Decrease
City Debt	\$283,734 20	\$273,914 20	\$ 9,820 00
Interest	156,500 00	145,000 00	11,500 00
Sinking Funds	30,500 00	30,500 00	
	\$470,734 20	\$449,414 20	\$21,320 00

Summary of Anticipated Receipts and Appropriations, 1910.

Amount which Assessors are directed to raise by taxation	\$1,394,300 00	
Revenue Estimated	451,145 00	
	<hr/>	\$1,845,445 00
Fixed Charges	449,414 20	
Appropriated for Departments	1,387,913 29	
	<hr/>	1,837,327 49
		<hr/>
Balance left in General Treasury Fund		\$ 8,117 51

Your Committee introduce the accompanying Joint Orders and recommend the adoption of same.

Respectfully submitted,

ARTHUR L. GRAY, Chairman.
 ROYAL K. DEXTER,
 JOHN W. WAINWRIGHT,
 VICTOR F. JEWETT,
 JOHN P. DAVIS,
 JAMES J. FLANAGAN,
 ROBERT S. FULTON,
Committee on Appropriations.

CITY OF LOWELL

ORDER to appropriate money to meet Fixed Charges and Current Expenses.

ORDERED, If the Common Council concur, That the following sums amounting to One Million, Eight Hundred Thirty-seven Thousand, Three Hundred Twenty-seven Dollars and Forty-nine Cents (\$1,837,327.49), be and the same are hereby appropriated to meet the Fixed Charges and Current Expenses of the City of Lowell for the year beginning January 1, 1910, and ending December 31, 1910.

Assessors

Salaries and Wages	\$12,000 00	
Other Expenses	800 00	
	<hr/>	\$12,800 00

Auditor

Salaries	3,890 00	
Other Expenses	1,100 00	
	<hr/>	4,990 00

Buildings

Office Salaries and Wages	4,147 00	
Wages, Carpenters', Painters', etc.....	6,300 00	
Janitors	2,091 50	
Other Expenses (Including City Hospital Repairs)	7,461 50	
	<hr/>	20,000 00

Charity (Outdoor Relief)	26,000 00	
(Hospital)	49,000 00	
	<hr/>	75,000 00

City Cemeteries	7,500 00
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City Clerk

Salaries	5,186 33	
Other Expenses	1,250 00	
	<hr/>	6,436 33

City Messenger		
Salary and Wages	\$10,000 00	
Other Expenses	8,000 00	
	<hr/>	\$18,000 00
City Sealer		
Salaries	1,772 00	
Other Expenses	450 00	
	<hr/>	2,222 00
City Treasurer		
Salaries	8,582 00	
Other Expenses	2,500 00	
	<hr/>	11,082 00
City Weigher		
Salary	800 00	
Other Expenses	10 00	
	<hr/>	810 00
Clerk of Committees		
Salary	1,400 00	
Other Expenses	200 00	
	<hr/>	1,600 00
Clerk of Common Council		300 00
Elections		9,000 00
Engineering		6,300 00
Fire		
Salaries and Wages	138,000 00	
Other Expenses	25,000 00	
	<hr/>	163,000 00
Fish Warden		40 00
Health (Office)		
Salaries and Wages	10,000 00	
Other Expenses (including care of con-		
tagious diseases)	4,000 00	
Milk Inspection Salaries	2,204 25	
" " Other Expenses	250 00	
	<hr/>	16,454 25

Health (Yard)		
Wages	\$32,000 00	
Other Expenses	8,500 00	
	<hr/>	\$40,500 00
Incidentals		1,800 00
Insurance		3,500 00
Inspector of Animals and Provisions		
Salary	500 00	
Other Expenses	10 00	
	<hr/>	510 00
Inspector of Wires		
Salaries	2,226 00	
Other Expenses	300 00	
	<hr/>	2,526 00
Law		
Salaries	4,828 00	
Other Expenses	800 00	
	<hr/>	5,628 00
Library		15,000 00
Lighting		98,000 00
Liquor Licenses		43,138 00
Mayor		
Salaries	4,200 00	
Other Expenses	150 00	
	<hr/>	4,350 00
Park		
Wages	10,000 00	
Other Expenses	4,000 00	
Care of Trees	800 00	
Raising and Repairing North Common Walks	1,000 00	
Fort Hill Park Ball Grounds	1,000 00	
Playgrounds	1,500 00	
Moth and Beetle Extermination	6,000 00	
Anne Street Ornamental Grounds	500 00	
Repairing School Grounds	500 00	
	<hr/>	25,300 00

Police

Salaries, Police Board and Commissioned Officers	\$24,700 00	
Patrolmen	105,000 00	
Wages, Telegraph and Stable, and Pensions	15,265 71	
Special Duties, Elections and Celebrations	1,300 00	
Other Expenses	4,900 00	
	<hr/>	\$ 151,165 71

Poundkeeper 5 00

Registrars of Voters 4,500 00

Rifle Range

Wages	626 00	
Other Expenses (including long distance target expenses)	300 00	
	<hr/>	926 00

Schools 378,000 00

School Houses

Wages, Carpenters', Painters', etc.....	10,000 00	
Other Expenses	9,700 00	
Kalsomining	2,000 00	
Plastering and Lathing	300 00	
	<hr/>	22,000 00

Sewer Maintenance

Salaries and Wages	12,000 00	
Other Expenses	3,000 00	
	<hr/>	15,000 00

State Aid

Office Expenses	2,000 00	
State Aid	17,000 00	
Military Aid	3,000 00	
Soldiers' Relief.....	13,000 00	
	<hr/>	35,000 00

Street

Salaries	4,000 00	
Wages	110,000 00	
Other Expenses	40,000 00	
New Sidewalks.....	5,000 00	
	<hr/>	159,000 00

Street Watering		
Wages	\$5,000 00	
Other Expenses	15,000 00	
	<hr/>	\$20,000 00
Supply		
Salaries	5,530 00	
Other Expenses	700 00	
Advertising.....	300 00	
	<hr/>	6,530 00
Department Total		<hr/> \$1,387,913 29

FIXED CHARGES.

City Debt	\$273,914 20	
Interest	145,000 00	
Sinking Funds	30,500 00	
	<hr/>	449,414 20
Total		<hr/> \$1,837,327 49

And that the sum of Two Hundred Thousand Dollars (\$200,000.00) be and the same is hereby appropriated for the expenses of the Water Department, to be paid from its revenues.

CITY OF LOWELL

Order relating to Report of Committee on Appropriations.

Ordered, If the Common Council concur, That a sufficient number of copies of the report of the Committee on Appropriations be printed for, and that they be included in the published volumes of the Lowell City Documents for the year 1910, the expense of the printing to be charged to the Appropriation for Incidentals.

CITY OF LOWELL

Order to Assess Taxes for the year Nineteen Hundred and Ten.

Ordered, If the Common Council concur:

First: That the Board of Assessors of the City of Lowell be and they are hereby instructed to raise the sum of One Million, Three Hundred Ninety-four Thousand, Three Hundred Dollars (\$1,394,300.00), by assessment upon Polls and Estates of the Inhabitants of the City of Lowell, and Estates of Non-Resident Proprietors, according to law, to defray the current expenses of the City for the financial year beginning January 1, 1910, and ending December 31, 1910.

Second: That interest at the rate of six per centum per annum shall be charged on all taxes under this Order which remain unpaid on and after the twentieth day of October, 1910, until same shall be paid, and such interest shall be added to and be considered a part of said taxes.

Third: That a copy of this Order shall be furnished to the Board of Assessors by the City Clerk within ten days after the approval of the same.

ANNUAL REPORT
OF THE
BIRTHS, MARRIAGES AND DEATHS
OF THE
CITY OF LOWELL
FOR THE YEAR 1909



LOWELL, MASS.
UNION PRINTING COMPANY
1910

CITY OF LOWELL

IN BOARD OF ALDERMEN,
May 3, 1910.

Received and ordered on file; sent down for concurrence.

GIRARD P. DADMAN,
City Clerk.

IN COMMON COUNCIL,
May 12, 1910.

Received and ordered on file in concurrence.

FRANK M. DOWLING,
Clerk.

CITY OF LOWELL

CITY CLERK'S OFFICE,
April 22, 1910.

To the Honorable City Council.

GENTLEMEN:

I have the honor to present you herein the annual report of Births, Marriages and Deaths for the year 1909, as of record in this office, to wit:

BIRTHS

	By Wards—1	2	3	4	5	6	7	8	9	Total
Whole Number.....	176	387	271	203	238	745	228	173	210	2631
Males.....	93	201	149	99	130	361	114	93	104	1344
Females.....	83	186	122	104	108	384	114	80	106	1287
American Parents....	42	50	82	61	54	79	71	75	77	591
Foreign Parents.....	90	267	131	105	148	526	93	53	74	1487
American Father, Foreign Mother ...	21	34	33	20	20	66	28	21	34	277
Foreign Father, American Mother..	23	36	25	17	16	74	36	24	25	276
Twins.....	1	5	1	1	1	8	2	6	4	29

In addition to the above there are recorded the births of seventeen children born in Lowell of parents resident elsewhere, and seven born elsewhere of Lowell parents.

Still-births, not included, 134.

MARRIAGES

Ten hundred and ninety-six notices of intention of marriage were received and entered in 1909, being 171 more than in 1908.

The number of marriages recorded in 1909 was 1100, being 155 more than in 1908. Marriages solemnized in Lowell, 1022; elsewhere, 78.

MARRIAGES IN 1909 BY MONTHS

January	80	May	81	September	115
February.	85	June.....	165	October.....	128
March.....	16	July	64	November.....	106
April.....	101	August	98	December.....	61

NATIONALITY OF CONTRACTING PARTIES

	GROOMS	BRIDES
United States.....	484	488
Canada.....	178	169
Ireland.....	66	83
Russia and Poland.....	71	63
Austria	43	53
Greece	76	73
England.....	53	42
British Provinces.....	38	44
Portugal and Western Islands	35	38
Scotland.....	14	14
Norway and Sweden	10	10
Other countries.....	32	23
Oldest couple married.....	Groom 68 yrs.	Bride 58 yrs.
Youngest couple married.....	Groom 19 yrs.	Bride 16 yrs.
Oldest person married, 68 years.	Youngest person married, 15 years.	
Grooms under 21 years.....	59	Brides under 18 years.....27

DEATHS

The total number of deaths returned and recorded in the City Clerk's office for the year 1909, exclusive of still-births, was 1947, of which number 62 were residents of Lowell who died elsewhere; making the number of deaths returned and recorded as having occurred in Lowell (44 of which were non-residents) 1885, being 78 less than in the year 1908.

Males	921
Females.....	964
Persons between 80 and 90 years.....	79
Persons over 90 years	20
Still-births	134

Statistics in greater detail relating to deaths may be found in the annual report of the Board of Health.

Respectfully submitted,

GIRARD P. DADMAN,

City Clerk.

TABLE GIVING THE NUMBER OF BIRTHS, MARRIAGES AND
DEATHS IN LOWELL SINCE ITS INCORPORATION

YEAR	POPULATION	BIRTHS	MARRIAGES	DEATHS
1826-1843		Est. 5010	Est. 4500	Est. 4186
1844	25,163	662	319	362
1845		660	399	363
1846	29,127	772	591	690
1847		719	659	949
1848		796	516	825
1849		672	320	903
1850	33,383	966	674	492
1851		1018	669	629
1852		1007	669	604
1853		1093	742	734
1854		1092	808	834
1855	37,554	1039	687	766
1856		1034	632	790
1857		1051	585	818
1858		827	467	626
1859		983	496	739
1860	36,827	1077	497	720
1861		949	459	713
1862		763	368	641
1863		657	302	695
1864		658	335	633
1865	30,990	672	406	575
1866	36,878	813	625	749
1867		826	596	640
1868		860	495	857
1869		858	575	763
1870	40,928	926	515	952
1871		886	647	1033
1872		1099	670	1048
1873		1365	705	1161
1874		1356	580	1184
1875	49,688	1296	513	1020
1876		1264	514	1147
1877		1341	552	1029
1878		1332	546	1088
1879		1412	635	1006
1880	59,485	1770	744	1312

YEAR	POPULATION	BIRTHS	MARRIAGES	DEATHS
1881		1840	786	1287
1882		1755	813	1322
1883		1681	848	1432
1884		1786	735	1401
1885	64,107	1769	707	1328
1886		1813	813	1499
1887		1835	873	1872
1888		1886	886	1763
1889		2133	965	1894
1890	77,696	2175	979	1960
1891		2203	944	1976
1892		2714	941	2228
1893		2688	955	2108
1894		2764	793	1790
1895	84,359	2772	978	1898
1896		2805	854	1896
1897		2622	866	1882
1898		2422	962	1835
1899		2419	1015	1880
1900	94,969	2574	1135	1852
1901		2770	1022	2042
1902		2496	1075	1944
1903		2514	1026	1897
1904		2515	1065	1736
1905	94,889	2513	981	1899
1906		2550	1125	1919
1907		2689	1055	2063
1908		2730	860	1963
1909		2631	1022	1885
		<hr/> 109,645	<hr/> 52,091	<hr/> 86,727

THIRTY-SECOND

Annual Report

OF THE

Board of Health

OF THE

CITY OF LOWELL

FOR THE YEAR 1909



LOWELL, MASS.,
THE LAWLER PRINTING COMPANY
29 PRESCOTT STREET
1910

ORGANIZATION 1909

BOARD OF HEALTH

LEONARD HUNTRESS, M. D.
G. FORREST MARTIN, M. D.
DENNIS J. MURPHY, Esq.
FRANCIS J. O'HARE, SECRETARY.

HEALTH DEPARTMENT OFFICERS

OFFICE EMPLOYES

FREDERICK A. BATES, Agent.
THOMAS B. SMITH, M. D. Bacteriologist.
WILLIAM A. JOHNSON, M. D., Physician.
KATHERINE W. SNOW, Registrar.

INSPECTORS

FRANCIS J. O'HARE, Inspector Contagious Diseases.
STEPHEN GARRITY, Plumbing Inspector.
WILLIAM H. CONNORS, Plumbing Inspector.
JOHN KEARNEY, Health Inspector.
JAMES F. MCGARVEY, Inspector Meat and Provisions.

CITY OF LOWELL

IN BOARD OF ALDERMEN, February 1, 1910.

Received, read and ordered on file; sent down for concurrence.

GIRARD P. DADMAN, *City Clerk*.

IN COMMON COUNCIL, February 8, 1910.

Received, read and ordered on file; in concurrence.

FRANK M. DOWLING, *Clerk*.

REPORT

LOWELL, MASS., January 24th, 1910.

To the Honorable Mayor and the City Council of the City of Lowell.

GENTLEMEN:—

The Board of Health hereby respectfully submits its thirty-second annual report.

The Board, consisting of Dr. Leonard Huntress, Dr. G. Forrest Martin and Dennis J. Murphy, Esq., organized January 6, 1909, by electing Dr. Huntress Chairman for the year. Mr. Francis J. O'Hare, the Inspector of Contagious Diseases, was chosen Secretary pro tem.

We feel in giving to you an account of our stewardship we can honestly state that we have done our best to see to it that the affairs of this department have been conducted on a business basis. There has been no padding of the pay roll here; politics has not entered into our calculations in the least. All the work that has been done has in our opinion been necessary work, and we believe that it could not have been so well done at a cheaper expense. In saying that the work done has been necessary, we but faintly express our views. We know that the Board of Health should produce better results than we have been able to accomplish in matters purely

sanitary, but we have done the best we could with the means at our disposal, and during the past year in such important particulars as Meat Inspection, a Pure Milk Supply and the Prevention of Tuberculosis we have taken steps which we believe will lead to vastly improved health conditions.

Early in the year we reduced our office expenses by discharging a sanitary inspector whose services could be dispensed with, but on the other hand we felt obliged to enlarge the work of our Inspector of Meats and Provisions at a necessarily increased expense. Heretofore the man employed to do this work had devoted but two days in each week to this inspection with most unsatisfactory results. The question of Meat Inspection has assumed unusual importance in the past two years, and we did not see our way clear to abolish the office. The only alternative was to elect an inspector who should devote his whole time to this work. April 16th we elected Mr. James F. McGarvey to this position, and the excellent work which he performed justified us in our selection, but we were obliged to employ a man recommended by the Civil Service Commission, and accordingly on the 17th of December we elected Dr. Clement A. Hamblet as inspector. Dr. Hamblet is a veterinary surgeon and this fact will doubtless add greatly to his efficiency.

Last winter, 1908-09, we received notices from the State Board of Health to the effect that many of the farms which supplied Lowell with milk were in an unsanitary condition. Our Agent in company with Mr. Turner, the then Milk Inspector, visited many of these milk farms and reported to us that the complaints coming from the State Board were not without justification, whereupon we

summoned the raisers of milk living in Lowell and vicinity to a hearing February 26th. The hearing was an amicable one. The members of the Board explained to the milk raisers the wrong conditions which existed and in what way these conditions could and must be remedied, and the milkmen promised to comply with these suggestions. We believe that as a result of this investigation and hearing the milk farms in and about Lowell have been vastly improved. The barns are cleaner; they are also better ventilated; the milk rooms have been rendered more sanitary; the cows are cleaner; this means healthier cows and cleaner milk.

The Legislature of 1909 enacted a law placing the milk inspectors under the direction of the local Boards of Health, and in accordance with this statute, we elected Mr. Melvin F. Master Inspector of Milk, December 17th. Mr. Master had been milk inspector under the old regime, having served in that capacity since May 1st, 1909, when Mr. Leroy M. Turner resigned the position.

Our milk laboratory is poorly equipped, and when we appear before the Committee on Appropriations, we shall show them the apparatus needed and what can be done with it.

Elsewhere in this report may be found our new rules governing the Production, Care and Sale of Milk, to which we wish to call your attention.

The one uncertain item of expense in this department is for the care of patients suffering with contagious diseases, though there is no uncertainty that the cost for the coming year will be greater than ever before. Now that tuberculosis has been placed on the contagious list, even if we should do only what is absolutely necessary,

the cost will be high. But it is our purpose to do our utmost to help stamp out the "white plague," and we feel sure that in this we shall have your hearty cooperation. We have not been idle the past year in this matter. Together with our inspectors we have devoted much time and thought to this subject. We undoubtedly do not know the location of every case of this disease, for some cases are wrongly diagnosed and some cases are unreported. But the location of most of the cases we do know, as well as the houses in which more than one case has occurred in the past few years, and we have prepared a map of the city with the tuberculosis houses dotted in red ink. This map is of great service to us. We are making use of it just at present in our house to house inspection which is being conducted by our inspectors in the limited time at their disposal for such work. Now, after each death from this disease, the house is fumigated and cleansed with the same care as in cases of diphtheria and scarlet fever.

The Mayor in his inaugural address admirably states the case in favor of a contagious hospital in this city. Why such a hospital has never been built in Lowell it is difficult to understand. The statute governing this question distinctly states that the city *must* erect a contagious hospital, and the State Board of Health can force the city to this action. Several Boards of Health have asked the City Councils to conform to such a requirement of the law, but always without success. Once the State Board of Health was asked to exercise its authority in the matter, but that Board did not see fit so to act. Of course the expense of building and maintaining such a hospital would be great and we are managing to care for contagi-

ous cases much more economically by our present method, but within the last few years our limited accommodations have been overcrowded several times, and a serious epidemic under existing conditions would be sad to contemplate.

In September a portion of the beam house of the American Hide and Leather Co. situated on Howe Street, collapsed and the attention of the public was attracted thereto. Within forty-eight hours the Board received several petitions numerously signed by interested citizens, setting forth that said beam house was a nuisance and should be abated. The petitioners were given a hearing September 20th and 23d, and this Board decided that the beam house was a nuisance to the community. We notified the American Hide and Leather Co. of this decision, but stated that we would allow said company time to prepare plans for a sanitary beam house. The company informs us that such plans are nearly completed. Unless we are convinced that the proposed beam house is to be absolutely sanitary and unobjectionable, we shall not assign for its erection any location within the city limits.

On the 5th of February Thomas F. Garvey was reinstated Foreman of the Health Department Yard, his work to cover but six days in each week instead of seven as heretofore. This action of the Board put an end to a tedious and expensive litigation.

Our attention has been called to many insanitary tenements, and the worst of these, over forty in number, we have ordered vacated. They have since been put in a condition satisfactory to the Board. We have also closed several bakeries which on personal inspection were found to be in a filthy condition.

A statistical report follows. Such a report may seem dry reading, but in no other way can you so well learn the exact health conditions of the city during the year and what it has cost to maintain this department as by studying these statistics.

The report of the bacteriologist, the report of the inspector of meat and provisions, and the report of the plumbing inspectors also follow. The report of the inspector of animals has been omitted, as this inspector is not directly under our jurisdiction. The milk inspector's connection with the Health Department began, as you will have noticed, almost at the close of the year, but the report of this inspector will constitute an important part of the report for the current year.

To accomplish anything worth while, a Board of Health must perform its work not only with interest, but with enthusiasm as well; and in this spirit we have worked. Every meeting has been attended by all the members of the Board, almost without exception; and we have given the same personal attention to everyday matters of routine as to the special and more important matters which have been by legislative action and by ordinance directly placed under our control and supervision.

Respectfully submitted,

LEONARD HUNTRESS, M. D.,
G. FORREST MARTIN, M. D.,
DENNIS J. MURPHY,

Board of Health.

RULES AND REGULATIONS OF THE BOARD OF HEALTH

The Board of Health of the City of Lowell, Mass., hereby makes and publishes as required by the Revised Laws of Massachusetts, Chapter 75, Section 14, the following "Rules and Regulations" governing the production, care and distribution or sale of milk in the City of Lowell:—

RULE 1. No person shall sell or distribute milk in the City of Lowell except in accordance with the Revised Laws of Massachusetts, Chapter 56, and in the acts which amend the same and the rules adopted by the Lowell Board of Health.

RULE 2. All persons who wish to engage in the sale, delivery or distribution of milk in the City of Lowell shall first make application for permission so to do upon blanks provided for that purpose, and annually thereafter on or before March 1st, and no license will be issued until all regulations governing the production and care of milk are complied with by the dairies which supply milk to the applicant. Such dairies will be inspected by the Board of Health of Lowell and no license will be granted for the distribution or sale of milk which is produced or obtained at any dairy which fails to comply with these regulations or which at any time refuses permission to any inspector of this Board to examine into its conditions.

RULE 3. All persons engaged in the sale, delivery or distribution of milk in the City of Lowell, shall file with the Board of Health upon proper blanks provided, a list of the dairies or farms, and their location, from which the milk so distributed is obtained, and shall, before making any changes in their supply notify the Board of Health in writing of such intended changes. Any person neglecting to comply with

this regulation or who dispenses milk from any dairy whose milk has been excluded from Lowell by this Board, shall have his license revoked.

RULE 4. All wagons or other vehicles and utensils used in the conveyance of milk for distribution or sale in Lowell shall be kept at all times in a clean condition and free from offensive odors. Receptacles containing milk shall at all times during transportation be properly covered. Each wagon or vehicle used for the sale, delivery or distribution of milk, shall have the name of the owner, residence, and license number painted thereon. Milk utensils shall not be used for containing any other substances whatsoever.

RULE 5. No certificate will be issued for the sale of milk in any store, shop, market or bakery or other establishment outside of a properly equipped milk plant, except in properly labeled and stoppered bottles. All milk so kept for sale must be maintained at a temperature below 50 degrees Fahrenheit in a suitable refrigerator or cooler, properly drained and cared for, and as approved by the Board of Health. The attendant making a sale of milk may transfer it to a container furnished by the customer at the time of purchase, but no bottle of milk shall be left unstoppered. A special permit must be obtained for the sale of milk from bulk containers to be drunk on the premises.

RULE 6. Bottles shall be filled only at a dairy or milk plant, or in such other manner as may be acceptable to the Board of Health. In no case shall milk bottles be filled from the delivery wagon or from bulk containers, left in places where milk is sold. All milk sold in bottles shall have a properly fitting stopper which shall have stamped thereon the name and license number of the dealer supplying the milk. Milk tickets shall not be used a second time. No can or utensil used to contain milk shall be transported in any vehicle used for conveyance of garbage or other material, or in any other manner liable to cause milk contamination.

RULE 7. No milk bottles shall be removed from any place where scarlet fever, diphtheria, membranous croup, or typhoid fever exists, until such bottles have been thoroughly washed and sterilized by boiling them for fifteen minutes; said sterilization to be done by the party using the milk. Any dealer receiving such bottles not so treated, or at any time refilling bottles which have not been to his knowledge properly washed and sterilized, will have his license suspended or revoked.

RULE 8. No milk shall be delivered, held, or offered for sale in Lowell from cows that are either diseased, not properly cared for, or kept in any stable which is not at all times maintained in a clean, wholesome and sanitary condition; or from any dairy refusing permission of inspection to the Lowell Board of Health, as to the equipment and methods used in producing milk.

RULE 9. The Board of Health will issue a permit to any dairy wishing to send milk to Lowell after an approved sanitary inspection has been made, and a permanent dairy number will be assigned to each dairy farm, to be used by dealers and this department for purposes of identification. No dairy will be considered acceptable if the milk room contains a urinal, privy or water closet.

RULE 10. No milk shall be brought into, held, delivered or offered for sale in Lowell from cows within 15 days before or five days after parturition, nor from any cow having any inflammatory disease of the udder.

RULE 11. No person engaged in the business of producing milk to be sold or distributed in Lowell, shall store, cool, mix or strain said milk in any room which is occupied by horses, cows or other animals, or for the storage of manure, or in any room used in whole or in part for domestic or sleeping purposes, or in any room not satisfactory to the Board of Health. All rooms in which milk is stored, cooled, mixed or strained, shall be kept clean at all times to

the satisfaction of the Board of Health, and all utensils employed in the storage, sale or distribution of milk, shall be washed with boiling water or sterilized with live steam before they are again used.

RULE 12. All milk produced for distribution or sale in the City of Lowell, shall be strained and cooled to 50 degrees Fahrenheit, or lower, as soon as it is drawn, but it shall not be cooled or stored in any well, drinking trough used for watering animals, or in any receptacle located in a barnyard, or other places not approved by the Board of Health. In handling and storing milk, the importance of protecting it from flies shall always be borne in mind, and proper screens used for this purpose. No milk shall be held, distributed or sold in Lowell at a temperature above 60 degrees Fahrenheit.

RULE 13. Every person engaged in the production, storage, transportation, delivery or distribution of milk to be sold in Lowell, shall notify the Board of Health of Lowell, immediately on the occurrence of any case of diphtheria, membranous croup, scarlet fever or typhoid fever, either in himself or in his family, or amongst his employes or their immediate associates, or within the building or premises where milk is stored, handled or distributed, and at the same time shall suspend the sale and distribution of milk until authorized to resume the same by the Board of Health of Lowell.

RULE 14. Any person who shall violate any of the within rules and regulations where the penalty is not prescribed by statute, shall forfeit a sum not exceeding twenty dollars and the suspension or revocation of the license at the option of the Board of Health.

Adopted December 3, 1909.

LEONARD HUNTRESS, M. D.,
G. FORREST MARTIN, M. D.,
DENNIS J. MURPHY,

Board of Health.

INSPECTOR OF MEATS AND PROVISIONS

Lowell, Dec. 31, 1909

TO THE BOARD OF HEALTH,
LOWELL, MASS.

Gentlemen:

My duties as Inspector of Meats and Provisions require my presence at all slaughtering done in the City of Lowell. In the performance of this duty, I have been called on seventy-three occasions. I inspected and passed the following as fit for food: 237 swine, 10 calves, 2 sheep and 1 cow.

I condemned at the time of slaughtering and sent to the Rendering Works the following: 1 cow infected with tuberculosis, 2 swine infected with tuberculosis, and 1 calf.

During my period of service but two cows have been slaughtered in the City. One of these I found infected with tuberculosis, and ordered it sent to the Rendering Works.

On two occasions I refused to stamp swine because the organs had been removed prior to my arrival.

In the discharge of my duty as inspector of places where food products are for sale, I made 5399 visits. These visits included wholesale and retail dealers, sausage manufacturers, wholesale and retail fish dealers and restaurants, also wholesale and retail fruit dealers. I also looked over twenty cars of potatoes. I found five ice chests leaking into cellars; ordered fowl removed on three occasions, one by mail from the office; held conferences with the State Inspector on eight occasions; attended eight meetings of the Board; had five slaughterers appear before the Board; also had two out of town inspectors appear before the Board for not complying with the law.

I condemned the following as unfit for food and sent to the Rendering Works:

1 cow, 1 calf, 3 swine, 5 fore-quarters of lamb, 2 fore-quarters of veal, 2 rattles of beef, 1 flank of beef, 1 fore of veal, 1 whole veal, 1 round of beef, $1\frac{1}{2}$ veals, 1 swine, 3 shanks of beef, 1 loin of beef, 1 flank of beef, 2 chucks of beef, 1 fore of veal, 1 eight rib of beef, 1 rattle of beef, 1 14lb. can of corn beef, 110 lbs. of beef and pork, $\frac{3}{4}$ bbl. of pickles, $\frac{3}{4}$ bbl. of salt herring, $\frac{1}{2}$ bbl. of salt codfish, $\frac{3}{4}$ bbl. of clams, $\frac{1}{2}$ bbl. of corn beef, $\frac{1}{2}$ veal, 1 veal, 1 bbl. of rabbits.

I condemned and tagged the following and released same on vote of the Board: 1 side of beef, 8 swine, 1 veal.

I also condemned and sent to the dump over seven tons of potatoes on vote of the Board.

On my inspection I found in the Greek colony much loitering in places where meat was offered for sale. I insisted on having the ice boxes and benches cleaned and clean sawdust kept on the floor. Every Saturday I paid a visit to this district, as they are all idle from noon, and saw that they complied with my requests, which they did freely.

In conclusion, I would recommend strict rules regulating the sale of food in all forms, as in my opinion such rules would tend to keep down disease. I would recommend the abolishing of all places where meat is for sale, where the floors are wholly or partly below the level of the curbing of the street, also the abolishing of all markets having any living room connected. I would also recommend that all markets be painted white or other light color once each year, preferably after the fly season, and that all ceilings be whitened once each year.

JAMES F. MCGARVEY,
Inspector.

Lowell, Mass., Jan. 1, 1910.

F. A. BATES, Agent Board of Health.

Sir:—The following is a report of the plumbing work done for the year ending Dec. 31, 1909:—

Whole number of applications for permits to do	
plumbing	940
New buildings	166
Old buildings	774
	<hr/>
	940

Total number of visits..... 2,943

Respectfully,

STEPHEN GARRITY,
WILLIAM H. CONNORS.

Plumbing Inspectors.

Lowell, Mass., Dec. 31, 1909.

The following is a report of the work done by the Plumbing Commission from Dec. 31, 1908, to July 19, 1909:

Whole number of applicants for examination	35
For Master Plumbers' Licenses.....	17
Passed	5
Failed	12
For Journeymen Plumbers' Licenses.....	18
Passed.....	10
Failed	8

DENNIS J. PENDEGAST,
Secretary of Plumbing Commission.

BOARD OF HEALTH IN ACCOUNT WITH PLUMBING COMMISSION

Received from 1908	\$ 20 14
Received from examinations and renewals.....	105 00
	<hr/>
	\$125 14

1909. Cr.

Feb. 27, 1909, paid D. J. Pendergast.....	\$10 00	
July 17, 1909, paid D. J. Pendergast.....	30 00	
	<hr/>	40 00
Deposited with City Treasurer Dec. 31, 1909		\$85 14

Notices to abate the following nuisances were sent from this office during the year 1909.

Clogged sink waste pipes	6
No water supply to sinks	8
Leaky sink waste pipes	13
Leaky sink traps	10
Untrapped sinks	9
Contents of dry well overflowing.....	1
No cover on sink traps.....	21
No water supply to water closets.....	100
Filthy water closets	40
Insufficient water supply to water closets ...	38
Clogged water closets	27
Leaky water closets	35
Leaky water closet tanks	0
No cover on water closet traps	6
Dilapidated woodwork around water closet..	23
Ashes and rubbish in cellars	152
Filthy barns	1
Leaky water supply pipes.....	10
Clogged drains.....	23
Open drains.....	9
Defective drainage	11
Defective joints in sink waste pipes	308

Filthy vaults ..	3
Rubbish in yards	155
Leaky roofs	1
Broken water closet bowls ..	3
No water supply to tenements	0
Unsealed sink traps	8
Leaky soil pipes	8
Untrapped refrigerators	8
Hens and pigeons in cellar	1
Manure in yard	6
Filthy stables	9
Leaky vaults	2
Filthy tenements ..	8
Removal of contents of vaults and dry wells.	35
Permission given to T. F. Fay to clean dry wells	27
Permission given to T. F. Fay to clean vaults	120
Permission given to F. A. Fox to clean dry wells	12
Permission given to F. A. Fox to clean vaults	35

CASES OF CONTAGIOUS DISEASES REPORTED

	1909	1908	1907	1906
Diphtheria, including Croup	205	243	521	370
Scarlet Fever	100	82	134	87
Measles	333	639	139	604
Typhoid Fever	91	188	73	34
Smallpox	0	1	0	0
Cerebro-Spinal Meningitis	7	14	22	50
	<u>736</u>	<u>1167</u>	<u>889</u>	<u>1145</u>

DEATHS FROM CONTAGIOUS DISEASES

	1909	1908	1907	1906
Diphtheria, including Croup.....	34	21	45	40
Scarlet Fever	9	2	5	3
Measles	4	5	5	13
Typhoid Fever	11	24	9	7
Smallpox.....	0	0	0	0
Cerebro-Spinal Meningitis	5	12	20	39
	<u>63</u>	<u>64</u>	<u>84</u>	<u>102</u>

In 1909 there were 447 fumigations, 119 of which were for Tuberculosis. 1725 rooms in all were fumigated.

There were 1610 vaccinations.

30 Undertakers' Licenses were granted during the year.

CASES OF DIPHTHERIA AND CROUP REPORTED
TO THE BOARD OF HEALTH FOR
THE YEAR 1909

	Diphtheria		Croup	
	Cases	Deaths	Cases	Deaths
January.....	31	2	3	1
February	18	4	0	0
March	8	1	0	0
April	7	0	1	1
May	13	1	2	1
June.....	12	2	0	0
July	7	0	1	1
August	9	1	1	0
September	17	4	0	0
October.....	21	4	4	1
November	29	2	1	2
December.....	20	3	0	3
	<u>192</u>	<u>24</u>	<u>13</u>	<u>10</u>

Mortality of Diphtheria, 12.5 per cent.

Mortality of Croup, 77 per cent.

MORTALITY OF DIPHTHERIA

	1894.....	33.0 per cent
	1895.....	44.0 per cent
Antitoxin Treatment	1896.....	43.0 per cent
	1897.....	23.0 per cent
	1898.....	23.0 per cent
	1899.....	18.0 per cent
	1900.....	10.0 per cent
	1901.....	12.0 per cent
	1902.....	9.5 per cent
	1903.....	10.5 per cent
	1904.....	11.0 per cent
	1905.....	6.0 per cent
	1906.....	9.0 per cent
	1907.....	7.5 per cent
	1908.....	7.0 per cent
	1909.....	12.5 per cent

LOWELL, MASS., January 1, 1910.

TO THE MEMBERS OF THE BOARD OF HEALTH,

LOWELL, MASS.

Gentlemen:—

I have the honor hereby to submit to you a report of the work done in the Bacteriological Laboratory during the year ending December 31, 1909:

DIPHTHERIA

EXAMINATION OF CULTURES

	For Diagnosis		For Release		No	Whole
	Positive	Negative	Positive	Negative	Result	Number
January.....	25	82	33	47	3	190
February	13	75	31	30	1	150
March	7	49	9	16	1	82
April	5	35	3	5	1	49
May	9	40	1	9	1	60
June	9	28	7	21	1	66
July	8	19	1	5	1	34
August	8	16	6	8	1	39
September	16	18	8	14	0	56
October	15	48	19	22	2	106
November	29	50	22	22	0	123
December....	14	48	16	17	3	98
	158	508	156	216	15	1053

TUBERCULOSIS

EXAMINATION OF SPUTUM

	Positive	Negative	Whole Number
January	13	29	42
February	13	33	46
March	9	41	50
April	16	35	51
May	8	28	36
June	12	32	44
July	8	11	19
August	6	27	33
September	24	4	28
October	32	12	44
November	8	39	47
December	12	15	27
	<hr/> 161	<hr/> 306	<hr/> 467

TYPHOID FEVER

Examination of Blood for Widal Reaction.

	Positive.	Negative.	Atypical.	No Result.	Total.
January	8	13	0	0	21
February	2	9	0	0	11
March	6	6	1	0	13
April	7	12	0	0	19
May	12	9	0	0	21
June	8	12	0	0	20
July	5	21	0	0	26
August	11	20	0	0	31
September	6	16	0	2	24
October	12	30	0	1	43
November	6	18	0	0	24
December	9	18	0	0	27
	<hr/> 92	<hr/> 184	<hr/> 1	<hr/> 3	<hr/> 280

MALARIA

Five specimens of blood were examined for the presence of the Malarial Parasite, two of which gave a positive result.

CEREBRO-SPINAL MENINGITIS

During the year four patients who showed symptoms of Meningitis were examined. Two of them proved to be cases of Epidemic Cerebro-Spinal Meningitis. Both of these cases were put under treatment with Flexner Serum at the Lowell Hospital. The first one, a child of 5 years, had been sick about two weeks when the examination was made. At that time the patient was blind and partly paralyzed. Under the serum treatment he made a complete recovery.

The second patient, a man of 45 years, a recent case, was seized with a convulsive attack. Examination of his cerebro-spinal fluid showed the presence of Meningococci. This patient is at present under the serum treatment and is apparently recovering.

GENERAL EXAMINATIONS

Two cases of purulent conjunctivitis in infants were examined and found to be due to Gonorrhoea. Seven specimens of pus sent in for examination for gonorrhoea gave positive results in five. A number of other examinations were made of various pathological materials.

THOMAS B. SMITH, M. D.,

Bacteriologist.

Our expense at the Lowell Hospital for 1909 was \$232.64 as compared with \$398.29 in 1908.

Margaret McPhillips.....	\$18.74
James Blank	3.57
Wm. Regan	61.43
Rose Regan	61.43
Andrew Monahan	21.00
John Flynn	31.43
Harris Pavlos	16.50
Annie Rogerson	10.54
Margaret Dolan	4.00
Mabel Dolan	4.00
	<hr/>
	\$232.64

SCARLET FEVER

	1909	1908	1907	1906	1905
Cases reported	100	82	134	87	48
Deaths	9	2	5	3	0
Per cent total cases.....	9	2	4	3	0

	Reported Cases	Deaths
January	4	1
February	10	0
March	9	0
April	7	1
May	9	1
June	10	1
July	5	0
August	14	3
September	10	2
October	5	0
November	9	0
December	8	0
	<hr/>	<hr/>
	100	9

MEASLES

	Reported Cases	Deaths
January.....	13	0
February.....	15	0
March.....	13	0
April.....	14	0
May.....	15	0
June.....	19	0
July.....	36	1
August.....	19	1
September.....	4	0
October.....	3	0
November.....	45	0
December.....	137	2
	<hr/>	<hr/>
	333	4

TYPHOID FEVER

	Reported Cases	Deaths
January.....	11	1
February.....	2	0
March.....	7	1
April.....	7	2
May.....	8	0
June.....	7	2
July.....	7	0
August.....	6	3
September.....	7	0
October.....	9	0
November.....	7	1
December.....	13	1
	<hr/>	<hr/>
	91	11

TYPHOID FEVER

	Population	Reported Cases	Deaths
Total 1909	96380	91	11
Total 1908	96380	188	24
Total 1907	96380	73	9
Total 1906	96380	30	7
Total 1905	94889	56	17
Total 1904	104402	48	17
Total 1903	101959	238	26
Total 1902	99574	83	16
Total 1901	94969	70	18
Total 1900	94969	85	17
Total 1899	90114	57	17
Total 1898	87000	119	24
Total 1897	87000	105	18
Total 1896	95700	178	36
Total 1895	84359	172	33
Total 1894	83026	282	50
Total 1893	81694	160	53
Total 1892	80361	373	75
Total 1891	79029	293	77
Total 1890	77696	454	123

A decrease from 1.59 per thousand inhabitants to .11 in twenty years.

PLACES OF DEATH

Ward 5	1
Ward 6	2
Ward 8	1
Lowell Hospital	3
Lowell General Hospital	2
St. John's Hospital	2

 11

Males 5 Females 6 Oldest 47 Youngest 9

DEATHS FROM CHOLERA INFANTUM

	1909	1908	1907	1906
January	0	1	2	0
February	0	0	1	0
March	0	0	0	0
	<hr/>	<hr/>	<hr/>	<hr/>
Total first quarter....	0	1	3	0
April	0	1	1	0
May	0	0	0	1
June	1	5	1	2
	<hr/>	<hr/>	<hr/>	<hr/>
Total second quarter .	1	6	2	3
July	19	48	34	44
August	25	30	34	31
September	16	18	13	13
	<hr/>	<hr/>	<hr/>	<hr/>
Total third quarter ...	60	96	81	88
October	3	7	7	2
November	0	0	0	0
December.....	0	0	0	0
	<hr/>	<hr/>	<hr/>	<hr/>
Total fourth quarter..	3	7	7	2
Total for year.....	64	110	93	93

VITAL STATISTICS

	1909	1908	1907	1906
Deaths, male	922	994	1006	944
Deaths, female	963	969	1057	974
	<hr/>	<hr/>	<hr/>	<hr/>
	1885	1963	2063	1918
Children under 1 year ..	494	554	537	544
Children under 2 years.	593	663	621	652
Children under 5 years.	671	750	699	754
Per cent of total deaths				
under 5 years.....	35.6	38.2	33.9	39.3

Birthplace	Of Deceased	Of Parents
Lowell.....	854	217
Massachusetts	121	162
Other States	260	488
Ireland	300	1063
Canada	188	892
Great Britain.....	82	254
Other Countries.....	67	434
Unknown	13	260
	<hr/> 1885	<hr/> 3770

PLACES OF DEATH

Ward 1.....	124
Ward 2.....	200
Ward 3.....	166
Ward 4.....	179
Ward 5.....	141
Ward 6.....	371
Ward 7.....	128
Ward 8.....	116
Ward 9.....	132
Almshouse.....	107
Lowell Hospital	77
Lowell General Hospital	55
St. John's Hospital	87
Emergency Hospital.....	2
	<hr/> 1885

Still Births during year 134.

PLACES OF INTERMENT

St. Patrick's Cemetery	756
Edson	376
Westlawn	15
Lowell	61
St. Joseph's	452
St. Peter's	39
Other Cemeteries	13
Removed from City	173
	<hr/>
	1885

DEATH RATE

	Year	Population	Deaths	Death Rate
Population, census	1890	77,696	1959	25.21
estimated	1891	79,029	1972	24.95
estimated	1892	80,361	2224	27.67
estimated	1893	81,694	2094	25.62
estimated	1894	83,026	1775	21.28
census... ..	1895	84,359	1857	22.01
estimated	1896	85,700	1901	22.18
estimated	1897	87,000	1855	21.33
estimated	1898	87,000	1808	20.78
estimated	1899	90,114	1848	20.50
census	1900	94,969	1849	19.47
estimated ...	1901	94,969	2038	21.45
estimated	1902	99,574	1935	19.43
estimated	1903	101,959	1898	18.61
estimated	1904	104,402	1736	16.61
census... ..	1905	94,889	1899	20.02
census... ..	1906	96,380	1918	19.90
census	1907	96,380	2063	21.40
census... ..	1908	96,380	1963	20.36
census	1909	96,380	1885	19.55

MORTALITY REPORT FOR THE CITY OF LOWELL, FOR THE YEAR ENDING 1909

Deaths During the Year of 1909..... 1,885. Sex: Males, 922; Females, 963.

Population estimated at..... 96,380. Rate per 1,000.....\$19.55

CAUSES OF DEATH.	TOTAL FOR 1909.	AGE.																	SEX.							
		AGE.																	Males.	Females.						
		Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.	
I. GENERAL DISEASES.																										
1. Typhoid Fever.....	11	.....	.....	.....	.....	.....	.....	1	1	4	1	.....	1	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4. Intermittent fever and malarial cachexia.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4a. Malarial cachexia.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6. Measles.....	4	1	2	.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7. Scarlatina.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8. Whooping cough.....	6	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9. Diphtheria and croup.....	10	.....	3	1	3	1	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9a. Diphtheria.....	24	1	5	4	6	3	19	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10. Grippe.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14. Dysentery.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

CAUSES OF DEATH.	AGE.																SEX.										
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.	Males.	Females.	
GENERAL DISEASES—Continued.																											
18. Erysipelas.....	4	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	2	2
20. Purulent infection and septicemia.....	5	2	1	...	...	3	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	2
23. Rabies.....	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
26. Tubercle of the larynx....	4	...	1	...	...	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	3	1
27. Tubercle of the lungs.....	122	2	...	...	1	3	...	1	8	20	10	22	19	11	12	7	5	3	...	1	...	...	...	...	...	48	74
28. Tubercle of the meninges.	23	11	1	5	...	17	3	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17	6
29. Tubercle, abdominal.....	4	2	...	1	...	3	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	1	3
30. Pott's disease.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...
33. Tubercle of other organs.	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
34. Tubercle, generalized....	4	1	...	...	1	1	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...	...	2	2
36. Syphilis.....	2	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
4. Hereditary.....	2	2	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
39. Cancer and other malignant tumors of the buccal cavity.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...

[illegible]

CAUSES OF DEATH.	AGE.																							SEX.		
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.	Males.	Females.
TOTAL FOR 1909.	27	10	7	2	2	48	5	2	1	2	3	4	7	4	12	11	10	18	20	17	20	4	1	0	93	96
DISEASES OF THE NERVOUS SYSTEM.—Continued.																										
62. Locomotor ataxia, progressive.....	1																	1								1
63. Other diseases of the spinal cord.....	3															1			1		1				3	
64. Cerebral congestion and hemorrhage.....	97	1	1		2					1	1	6	2	8	7	8	15	18	12	14	2	1			45	52
65. Cerebral softening.....	3													1	1					1						3
66. Paralysis, without cause assigned.....	17		1		1						1				1	1	1	2	1	4	3	2			9	8
69. Epilepsy.....	3	1			1					1				1											1	2
70. Eclampsia (non-puerperal)	2						1				1															2
71. Convulsions of children ...	22	17	2		21		1																		11	11
72. Tetanus.....	7								1																1	
74b. Other affections of the nervous system.....	1	1			1					1	1	1			1					1	1				6	1
76. Diseases of the ear.....	1		1		1																				1	
Total of the nervous system, etc.	189	10	7	2	2	48	5	2	1	2	3	4	7	4	12	11	10	18	20	17	20	4	1	0	93	96

CAUSES OF DEATH.	TOTAL FOR 1909.	AGE.																	SEX.									
		Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.	Males.	Females.	
III. DISEASES OF THE CIRCULATORY APPARATUS.																												
77. Pericarditis	2								1									1									1	1
78. Endocarditis, acute	56							4	1	2	3	1	4	6	5	3	7	4	3	5	5	2	1				22	34
79. Organic diseases of the heart.....	134	2					2	1	3	2	4	1	5	6	6	9	14	14	14	19	16	9	9				70	64
80. Angina pectoris.....	6											1	3	1							1						5	1
81. Affections of the arteries (atheroma aneurism, etc.).....	55													1			1	1	6	4	15	15	7	3	2	26	29	
82. Embolism and thrombosis	4																1				1		2			3	1	
85. Hemorrhages.....	2	1					1										1										2	
Total of circulatory apparatus	259	3					3	1	8	3	6	5	9	12	12	14	19	24	24	26	38	29	20	4	2	127	132	
IV. DISEASES OF THE RESPIRATORY APPARATUS																												
88. Affections of the larynx.....	3							2						1													2	1
90. Bronchitis, acute.....	65	46	11	2	1	1	61	2				1			1												38	27
91. Bronchitis, chronic.....	20		1				1				1	1	1		1				5	1	3	2	1		1	3	17	

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CAUSES OF DEATH.	AGE.																				SEX.				
	Total for 1909.																				Males.	Females.			
	Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.	
DISEASES OF THE DIGESTIVE APPARATUS—Continued.																									
104. Other affections of the stomach (cancer excepted)	20	5	1	1	....	1	8	1	....	....	....	2	1	....	....	5	1	....	1	....	1	....	....	....	....
105. Diarrhoea and enteritis (under two years).....	188	148	28	6	4	1	187	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	101
106. Diarrhoea and enteritis (two years and over)...	28	....	....	....	....	....	....	1	1	....	1	3	3	....	1	1	1	4	5	1	3	1	2	....	8
108. Hernia, intestinal obstructions	30	2	....	....	....	....	2	1	....	1	....	2	3	1	2	2	1	5	3	3	2	1	1	....	13
109a. Disease of anus.....	1	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
110. Icterus, grave.....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	1
112. Cirrhosis of liver.....	12	....	....	....	....	....	....	....	....	....	....	2	1	2	1	....	2	....	2	....	1	1	....	....	5
113. Biliary calculi.....	2	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	2
114. Other affections of the liver	15	2	....	....	....	....	2	....	....	....	....	1	1	2	....	....	2	3	1	1	1	1	....	....	8
116. Peritonitis, simple (puerperal excepted)	17	5	....	1	....	....	6	....	....	1	....	1	2	1	....	....	4	1	1	....	....	....	....	....	9
118. Appendicitis and abscess of the iliac fossa..	8	....	....	....	....	....	....	1	2	2	....	1	2	....	....	....	....	....	....	....	....	....	....	....	6
Total digestive apparatus.	327	163	31	8	4	2	208	3	3	4	6	0	12	13	7	4	8	12	13	14	5	8	4	3	167

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CAUSES OF DEATH.	Total for 1909.	AGE.																SEX.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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		Under 1 year.	1 year and 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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CAUSES OF DEATH.	Total for 1909.	AGE.																			SEX.							
		Under 1 year.	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.	Males.	Females.	
X. MALFORMATION.																												
150. Malformations, congenital (still births excepted).	8	8					8																				4	4
XI. EARLY INFANCY.																												
151. Congenital debility, icterus and sclerema.....	150	150					150																				86	64
152. Other diseases appertaining to infancy.....	10	10					10																				7	3
Total early infancy.....	160	160					160																				93	67
XII. OLD AGE.																												
154. Senile debility.....	59																	3		1	9	8	8	15	15		19	40
XIII. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.																												
155. Suicide by poison.....	2											2															....	2
156. Suicide by asphyxia.....	7									1	1	1					3	1									4	3
157. Suicide by hanging or strangulation.....	4								1			1	1				1										2	2
158. Suicide by submersion...	3								1		1	1								1							1	2
159. Suicide by firearms.....	2											1							1								2	....

CAUSES OF DEATH.	Total for 1909.	AGE.																				SEX.						
																						Males.	Females.					
		Under 1 year	1 year and under 2 years.	2 years and under 3 years.	3 years and under 4 years.	4 years and under 5 years.	Total under 5 years.	5 years and under 10 years.	10 years and under 15 years.	15 years and under 20 years.	20 years and under 25 years.	25 years and under 30 years.	30 years and under 35 years.	35 years and under 40 years.	40 years and under 45 years.	45 years and under 50 years.	50 years and under 55 years.	55 years and under 60 years.	60 years and under 65 years.	65 years and under 70 years.	70 years and under 75 years.	75 years and under 80 years.	80 years and under 85 years.	85 years and under 90 years.	90 years and over.			
AFFECTIONS PRODUCED BY EXTERNAL CAUSES—Continued.																												
164. Fractures	12	1	1	1	1	2	2	2	2	1	1	1	2	1	2	2	2	2	2	2	1	2	1	2	1	1	11	1
166. Other accidental traumas	26	1	1	1	1	2	4	1	1	1	5	4	2	2	2	2	1	1	2	2	2	1	1	1	1	1	19	7
167. Burns and scalds	15	1	1	1	1	1	3	1	1	1	2	1	1	3	3	3	3	2	2	2	1	1	1	1	1	1	5	10
169. Insolation	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1
172. Accidental submersion ..	14	1	1	1	1	1	1	6	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	13	1
173a. Inanition	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	7	5
174. Absorption of deleterious gases (suicide excepted)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
176. Other external violence ..	3	3	3	3	3	3	3	3	3	3	4	10	9	11	7	6	5	4	6	1	3	1	3	0	1	1	68	36
Total affections, etc.....	104	12	2	3	3	3	23	7	3	3	4	10	9	11	7	6	5	4	6	1	3	1	3	0	1	1	68	36
XIV. ILL-DEFINED DISEASES.																												
178. Sudden death	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
179. Non-specified or ill-defined causes of death....	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total ill-defined diseases	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TOTAL FROM ALL CAUSES....	1885	494	99	37	23	18	671	45	29	29	56	47	89	89	74	82	77	89	115	100	108	86	52	27	20	922	963	

COLLECTION OF ASHES

	1909	1908	1907	1906
Jan	2015 loads	2062 loads	2161 loads	2024 loads
Feb.	1881	2010	1644	1848
March	2264	2247	2096	2022
April	2389	2321	2285	2010
May	1969	1953	2071	1669
June	1725	1739	1564	1466
July	1624	1610	1586	1353
Aug.	1477	1439	1445	1388
Sept	1422	1524	1330	1300
Oct	1789	1750	1792	1585
Nov.	1962	1829	1959	1819
Dec.	2236	2234	2043	1888
	<hr/> 22753	<hr/> 22718	<hr/> 21876	<hr/> 20372

COST OF COLLECTION

	Labor Pay Roll
1891.	\$ 8,000 19
1892.	9,857 42
1893.	11,542 94
1894.	12,087 93
1895.	10,591 40
1896.	11,311 25
1897.	12,793 15
1898.	11,209 70
1899.	10,903 30
1900.	10,665 36
1901.	10,651 28
1902.	10,454 80
1903.	9,691 50
1904.	10,714 95
1905.	11,035 00
1906.	10,771 75
1907.	10,747 55
1908.	11,212 60
1909.	11,431 05
463 loads of oaper were collected.	

AMOUNT OF REFUSE BURNED AT CREMATOR IN 1909

1626 tons refuse from meat and fish markets.

23 dogs.

47 cats.

191 mattresses.

12 bundles bed clothing.

16 pillows.

14 hens.

7 pigs.

7 loads moths from Park Department.

NUMBER OF LOADS SWILL COLLECTED

	1909	1908	1907	1906
Jan.....	362 loads	404 $\frac{1}{2}$ loads	453 $\frac{1}{2}$ loads	349 loads
Feb.....	336	371 $\frac{1}{2}$	382	315
March ...	370	367	388	322
April.....	343	352	374 $\frac{1}{2}$	298
May	339	348 $\frac{1}{2}$	378	335
June	373	373 $\frac{1}{2}$	341 $\frac{1}{4}$	340
July.....	376	385 $\frac{1}{2}$	414 $\frac{7}{12}$	359
Aug.....	466	488	441 $\frac{1}{2}$	505
Sept.....	549 $\frac{1}{2}$	490 $\frac{1}{2}$	485	486
Oct	448 $\frac{1}{2}$	414 $\frac{1}{2}$	459 $\frac{1}{2}$	468 $\frac{1}{2}$
Nov.....	388	349	366	424
Dec	386 $\frac{1}{2}$	394	386 $\frac{1}{2}$	452
	<u>4737$\frac{1}{2}$</u>	<u>4738$\frac{1}{2}$</u>	<u>4870$\frac{1}{3}$</u>	<u>4653$\frac{1}{2}$</u>

Total collections for 1909.....	4737 $\frac{1}{2}$ loads
1908.....	4738 $\frac{1}{2}$
1907.....	4870 $\frac{1}{3}$
1906.....	4653 $\frac{1}{2}$
1905.....	4323
1904.....	4352
1903.....	4031
1902.....	4035
1901.....	3861
1900.....	4217

SWILL ACCOUNT

	1909	1908	1907	1906
January.....	\$425 62	\$489 43	\$531 28	\$243 12
February.....	391 26	435 67	464 99	236 25
March.....	427 50	441 26	471 24	199 25
April.....	395 00	420 00	459 37	233 75
May.....	391 25	416 88	454 99	247 50
June.....	429 38	446 90	415 33	233 87
July....	433 76	458 16	515 68	233 75
August.....	535 64	581 26	551 86	312 50
September.....	635 01	584 39	606 22	310 00
October.....	520 64	491 89	571 91	343 13
November.....	446 28	421 26	441 26	332 50
December.....	435 01	472 51	466 89	343 75
Swill Licenses..	460 00	480 00	405 00	321 00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$5926 35	\$6139 61	\$6356 02	\$3590 37
Swill exchanged for Hay.....				2472 53
	<hr/>	<hr/>	<hr/>	<hr/>
	\$5926 35	\$6139 61	\$6356 02	\$6062 90

(364½ loads were charged to City Farm in 1909.)

86 Swill Licenses were issued during the year.

Cost of Collecting Swill Labor Pay Roll		Disposition of Swill	Income from Swill	Cost of Burning	Amount Burned	Total Cost Collection and Cremation of Swill and Garbage
1884	No Analysis	Sold	\$2,671.85			
1885	" "	"	3,711.38			
1886	" "	"	4,711.38			
1887	" "	"	3,604.00			
1888	" "	"	2,739.85			
1889	" "	"	2,948.52			
1890	" "	"	3,166.00			
1891	\$6,000.00	"	3,945.57	Cost of Cremator (\$8,000.00)		\$13,593.02
1892	5,593.02	Burned	3,239.92			
1893	7,022.66	"			3500 tons	14,693.43
1894	7,122.00	"			3486 "	12,864.69
1895	7,035.97	"			2750 "	10,698.50
1896	7,064.67	"			2810 "	10,408.01
1897	7,234.76	Part Burned	2,369.99		2629 "	9,846.07
1898	7,758.20	and	2,445.40		874 "	9,302.41
1899	7,193.30	Part Sold	3,547.00		105 "	8,591.16
1900	7,083.30	All Sold	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">} Cash</div> <div>3,368.00</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">} Hay</div> <div>840.72</div> </div>		109 "	8,177.95

1901	\$7,027.75	All Sold	{ Cash { Buggy { Manure { Hay	\$2,835.20 83.00 32.00 780.04	\$1,081.14	{ 35 tons { 317 " { Markets	\$7,404.64
1902	7,259.00	"	{ Cash { Hay	3,244.72 883.77	1,166.69	{ 11 Tons { Swill { 415 Tons { Markets	8,425.69
1903	8,178.93	"	{ Cash { Hay { Manure	3,299.87 1,584.72 100.95	1,191.86	{ 600 tons { Markets	9,370.79
1904	8,324.70	"	{ Cash { Hay	3,507.41 2,047.84	992.92	{ 303 tons { Markets	9,317.62
1905	8,318.50	"	{ Cash { Hay	3,656.12 2,079.38	1,101.20	{ 664 tons { Markets	9,419.70
1906	8,721.80	"	{ Cash { Hay	3,590.37 2,472.53	1,762.45	{ 1046 tons { Markets	10,484.25
1907	8,596.00	"	Cash	6,356.02	1,489.80	{ 1195 tons { Markets	10,085.80
1908	8,607.90	"	Cash	6,139.61	1,432.71	{ 1128 tons { Markets	10,040.61
1909	8,459.30	"	Cash	5,926.35	1,421.26	{ 1626 tons { Markets	9,880.56

1909 FINANCIAL STATEMENT—EXPENDITURES

PAY ROLLS—OFFICE

January.....	\$651 00
February.....	570 00
March.....	557 00
April.....	562 00
May.....	770 00
June.....	616 00
July.....	770 00
August.....	616 00
September.....	616 00
October.....	770 00
November.....	616 00
December.....	745 75
	<hr/>
	\$7859 75

PAY ROLLS—YARD

January.....	\$2,758 38
February.....	2,596 91
March.....	2,595 78
April.....	2,588 25
May.....	3,183 71
June.....	2,426 30
July.....	3,062 98
August.....	2,387 64
September.....	2,464 88
October.....	3,139 39
November.....	2,494 01
December.....	3,178 13
T. F. Garvey by decision of court.....	1,351 98
	<hr/>
	\$34,228 34

ANALYSIS OF PAY ROLLS OF 1909 AS COMPARED WITH 1908

	1909	1908	Increase	Decrease
Agent	\$1,825 00	\$1,830 00		\$5 00
Contagion Inspector	1,277 50	1,281 00		3 50
Plumbing Inspectors	2,191 00	2,198 00		7 00
Health Inspectors	1,134 00	2,198 00		1,064 00
Meat Inspector ..	728 00	344 50	\$383 50	
Registrar	704 25	706 50		2 25
Ashes	11,431 05	11,212 60	218 45	
Swill	8,459 30	8,607 90		148 60
Dumps and Alleys	3,909 30	4,229 15		319 85
Cremator	913 93	918 50		4 57
Stable	2,172 00	2,163 00	9 00	
Fumigation	882 84	892 44		9 60
Blacksmith	1,440 01	1,508 12		68 11
Foreman	1,081 50		1,081 50	
Clerk		432 00		432 00
Market Refuse...	1,780 00	1,755 50	24 50	
Yardman	806 43	622 56	183 87	
T. F. Garvey by decision of c'rt.	1,351 98	376 85	975 13	
Smallpox Hospital (labor)		128 00		128 00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$42,088 09	\$41,404 62	\$2,875 95	\$2,192 48
Total Increase			\$683 47	

ANALYSIS OF BILLS, 1909

OFFICE SUNDRIES

Advertising	\$ 26 10
Bacteriological Department	156 24
Culture Taking	119 70

Massachusetts Association B. of H... ..	8 00
Express	15 85
Services of Stenographer at Tannery Hearing	25 00
Medical Services	445 00
Meat Inspection	10 00
Printed Supplies	186 25
Stamped Envelopes	114 24
Sundries	129 53
Printing Annual Report	60 90
Telephone	7 39
Vaccine	102 75

CARE OF CONTAGIOUS DISEASES, ACTS OF 1907

CHAPTER 386

City of Boston	760 71
City of Cambridge	82 93
City of Holyoke	15 20
City of Lynn	29 57
City of Ipswich	36 50
City of Salem	100 07
Provisions	200 85
Medicine	14 15
Medical Services	61 00
Rutland Sanatorium	170 83
Lowell General Hospital	44 00
Lowell Hospital	232 64
St. John's Hospital	113 00
North Reading Sanatorium	32 57
Lowell City Hospital	177 20
Tewksbury State Hospital	342 00
Total	<hr/> \$3,820 17

ANALYSIS OF BILLS, 1909

YARD SUNDRIES

Blacksmith Supplies	\$199 49
Corn	131 57
Cremator	315 33
Rent of Land for Cremator.....	175 00
Weighing Market Refuse	17 00
Coal	100 94
Electric Light.....	15 61
Hardware.....	56 98
Harness Supplies	86 40
Harness Repairing	44 10
Meal	121 06
Hay	2,380 38
Oats.....	3,079 33
Repairing Wagons	68 80
Sundries.....	280 69
Fumigating Supplies	81 08
Use of Horses.....	264 00
Veterinary Services	45 00
Water	66 17
New Saddle	13 00
Straw.....	122 10
Archibald Wheels	52 04
Canvas Covers	42 00
New Horses	580 00

\$8,338 07

INCOME TRANSFERRED TO GENERAL FUND

Swill sold	\$5,466.35
Swill Licenses.....	460.00
Waste Paper (M. P. Quadis).....	75.00
Used of Telephone... ..	00.60
Sale of Condemned Horses.....	2.00
Manure sold	48.00
Rent of Bill Boards.....	124.42
Plumbers' Fees	85.14
City of Fitchburg.....	44.00
City of Haverhill.....	12.50
Town of Dracut.....	31.43
Commonwealth of Mass.....	406.29
Stable Advertisements	8.00

Total.....\$6,763.73

Total to General Fund 1909	\$6,763.73
Total to General Fund 1908	6,418.50
Total to General Fund 1907	6,808.20
Total to General Fund 1906	4,566.66
Total to General Fund 1905	3,727.41
Total to General Fund 1904	4,137.31
Total to General Fund 1903	4,085.12
Total to General Fund 1902	6,103.87
Total to General Fund 1901	4,585.26
Total to General Fund 1900	3,647.03

SUMMARY 1909

OFFICE

	Appropriations	Additional Appropriations	Receipts	Expenditures	Balance
Salaries of Board....				\$1,500.00	
" " Dr. Smith				600.00	
Pay Rolls, office.....				7,859 75	
	\$9,000.00	\$959.75		\$9,959 75	
Bills, office	2,500.00	1,320.17		3,820 17	

YARD

Pay Roll	30,000.00	4,228 34		34,228 34	
Bills	8,500.00		\$427.52	8,338.07	\$589.45
	\$50,000.00	\$6,508.26	\$427.52	\$56,346.33	\$589.45

COST OF HEALTH DEPARTMENT 1909

EXPENDITURES

Salaries of Board	\$1,500.00
Salary of Bacteriologist	600 00
Pay Rolls, office	7,859.75
Pay rolls, yard	34,228.34
Bills, office.....	3,820.17
Bills, yard	8,338.07
	<u>\$56,346.33</u>

APPROPRIATIONS

Office Salaries	\$9,000.00
Office Sundries	2,500.00
Yard Labor	30,000.00
Yard Sundries.....	8,500.00
	<hr/>
	\$50,000.00
Additional Appropriations....	6,508.26
Receipts	427.52
	<hr/>
	\$56,935.78
Balance	589.45
	<hr/>
	\$56,346.33

FOLLOWING IS A SCHEDULE OF THE PROPERTY
IN CONTROL OF THE BOARD OF HEALTH

There are thirty-four (34) horses valued at \$4,816.00 at the Health Yard. Two new horses were purchased during the year and two were shot.

The Wagons and Sleds are valued at ...	\$4,835 00
The Harnesses and Robes are valued at	809 50

SUMMARY

Horses.....	\$4,816 00
Wagons and Sleds	4,835 00
Harnesses and Robes	809 50
Miscellaneous	200 00
Carpenter Shop.....	300 00
Blacksmith Shop.....	350 00
Smallpox Hospital	500 00
	<hr/>
	\$11,810 50

Year	Population	Expenditures	Revenue	Net Cost	City's Valuation	Taxation Per Capita
1894	83,026	\$a57,073 73	\$ 318 43	\$56,755 30	\$69,091,536	.63
1895	84,359	46,324 04	570 80	45,753 24	68,885,732	.54
1896	85,700	45,587 11	265 57	45,321 54	69,910,472	.53
1897	87,000	48,551 84	2,369 99	46,181 85	70,389,280	.53
1898	87,000	41,026 78	3,229 02	37,779 76	70,977,303	.43
1899	90,114	40,830 23	3,796 05	37,034 18	71,255,587	.41
1900	94,969	b46,266 11	3,647 03	42,619 08	71,529,515	.44
1901	94,969	46,673 41	4,585 26	42,088 15	71,674,588	.44
1902	95,574	c54,815 33	6,103 87	48,711 46	71,903,757	.48
1903	101,959	d46,168 01	4,085 12	42,682 89	72,004,028	.41
1904	104,402	e46,451 97	4,137 31	42,314 66	71,614,907	.40
1905	94,889	f51,707 39	3,727 41	47,979 98	71,645,718	.50
1906	96,380	54,096 00	4,566 66	49,529 34	74,325,775	.51
1907	96,380	57,763 79	6,808 20	50,955 59	76,079,750	.53
1908	96,380	g57,342 61	6,418 50	50,924 11	77,858,891	.53
1909	96,380	56,346 33	6,763 73	49,582 60	79,176,837	.51

- a. Small-pox and Swill Cremation, \$12,708.25
- b. Small-pox, \$4,739.67
- c. Small-pox, 6,626.20
- d. Small-pox, 1,000.00
- e. Small-pox, 1,010.02
- f. Small-pox, 3,297.08
- g. Small-pox, 291.64

TABLE SHOWING RAINFALL IN INCHES BY MONTHS FOR THIRTY-ONE YEARS 1879-1909

YEAR	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1879	2.475	3.762	5.013	4.030	2.279	5.709	4.379	6.176	2.176	1.434	3.364	4.465	45.262
1880	4.359	3.944	3.005	2.375	2.676	1.702	6.518	3.156	1.529	1.823	1.841	5.581	36.519
1881	5.538	3.151	7.210	1.855	4.274	4.900	2.496	1.731	2.730	1.962	4.282	4.253	44.182
1882	4.521	5.773	3.019	1.674	4.904	2.789	1.677	0.984	7.313	2.312	1.011	2.027	38.010
1883	2.923	3.405	1.885	1.895	4.640	2.036	3.583	0.909	1.487	5.292	1.730	2.623	32.418
1884	4.914	5.793	5.013	4.110	3.684	3.064	3.198	3.977	0.924	1.945	2.328	5.149	44.139
1885	4.856	4.095	1.022	3.606	3.589	4.293	6.026	6.098	1.581	4.841	5.183	2.811	48.001
1886	6.765	6.535	3.338	1.966	3.587	1.859	3.512	3.128	3.963	2.781	4.901	4.444	46.829
1887	5.720	5.182	4.738	3.046	1.644	2.608	5.425	10.931	2.228	3.116	3.270	4.547	53.445
1888	4.601	4.303	6.519	3.782	3.890	2.809	3.057	4.857	7.966	6.780	5.983	5.379	39.915
1889	5.037	1.710	1.938	3.830	3.889	2.592	6.102	3.979	3.266	4.268	6.929	3.366	46.756
1890	2.766	3.767	6.833	1.987	5.660	3.530	3.447	4.856	4.457	7.705	1.584	4.466	51.607
1891	7.041	3.840	5.953	3.563	2.289	3.659	2.968	1.966	1.806	2.926	1.913	3.204	41.131
1892	5.389	2.742	2.643	0.628	5.861	4.444	2.321	4.304	1.973	1.378	5.829	1.106	38.618
1893	2.392	7.703	2.439	2.946	4.900	2.414	2.696	3.944	2.293	3.825	1.933	5.460	42.945
1894	3.349	3.502	1.268	3.757	4.359	0.372	2.998	0.925	3.027	3.641	3.519	3.838	34.375
1895	3.306	1.747	2.656	4.569	1.782	2.631	2.659	2.017	2.230	6.674	8.165	3.172	41.332
1896	2.243	4.647	6.510	1.335	2.316	2.683	3.786	2.759	9.066	2.995	3.023	1.126	42.201
1897	4.551	2.958	4.146	2.248	4.945	6.106	4.619	5.630	3.033	0.592	6.487	5.320	50.439
1898	8.124	3.457	1.652	5.201	3.053	3.649	2.930	8.226	1.970	7.846	6.447	2.744	54.289
1899	3.690	5.017	7.950	1.500	2.100	2.713	4.116	2.111	3.663	1.987	2.714	1.683	39.244
1900	5.451	10.119	6.566	2.156	3.785	2.710	2.648	3.730	4.368	3.325	6.181	3.033	54.068
1901	1.720	1.056	5.756	10.567	7.678	1.489	4.776	3.267	3.282	3.434	2.792	8.553	54.370
1902	2.968	6.265	5.281	5.475	2.366	2.107	3.563	5.159	6.290	5.288	0.856	6.204	51.110
1903	3.386	3.957	5.900	3.691	0.818	9.180	2.621	3.676	1.745	4.461	1.527	3.011	43.973
1904	4.838	2.438	6.648	9.316	2.983	3.995	1.827	3.207	5.512	1.282	1.506	2.330	41.882
1905	6.958	1.705	3.708	2.171	1.293	5.179	0.591	4.498	6.389	1.327	2.251	3.862	39.932
1906	2.434	2.589	5.966	3.002	5.999	4.802	6.135	3.473	1.432	3.382	3.085	4.218	45.517
1907	2.770	2.390	2.149	3.638	2.578	3.033	4.367	1.356	8.525	4.492	5.772	4.735	45.605
1908	3.201	4.962	2.709	1.955	4.185	0.926	3.042	4.288	0.344	2.566	1.140	3.034	32.352
1909	4.166	5.787	0.477	5.530	2.773	2.132	2.517	2.460	4.213	1.203	2.646	4.078	37.982

ANNUAL REPORT

OF THE

Superintendent of Streets

OF THE

CITY OF LOWELL

For the Year 1909



LOWELL, MASS.
COURIER-CITIZEN COMPANY, PRINTERS.

1910

REPORT.

Office of Superintendent of Streets,

LOWELL, MASS., April 18, 1910.

To the Honorable City Council:

GENTLEMEN:—

In compliance with the City Ordinances, herewith, respectfully is submitted the annual report upon the several departments under the direction and control of the Superintendent of Streets, for the year 1909.

Respectfully submitted,

NEWELL F. PUTNAM,

Superintendent of Streets.

STREET AND SEWER DEPARTMENTS ORGANIZATION 1909

Superintendent of Streets

NEWELL F. PUTNAM

Assistant Superintendent

Streets

GEORGE W. HARTWELL

Assistant Superintendent

Sewers

FRANK W. LAZELLE

Clerk

CLARENCE H. RAYMOND

Bookkeeper

FRANKLIN T. WILSON

Inspector of Sewers

SAMUEL D. BUTTERWORTH

Clerk

E. VERA MULLANEY

Foremen

Streets

Blessington, John B.
Bowers, John
Enwright, John F.
Gardner, William G.
Gilmore, William
Morrison, Thomas W.
McHugh, James T.
Nerney, John J.
Sprague, Volney

Sewers

Gagne, Pierre
Tague, Thomas F.
Tighe, Owen
Kittredge, Luther F.
Crowley, Thomas F.
Lee, Bernard
Smith, Thomas E.
Thompson, Walter E.
McCann, Patrick

Engineering Department

City Engineer

GEORGE BOWERS

Assistant, Streets

WILLIAM A. FAVOR

Assistant, Sewers

GEORGE A. NELSON

INDEX

	PAGE
Asphalt Pavement Repaired	61
Asphaltina Pavement Repaired	61
Bridges	150
Catch Basins Built	176
Cinder Crossings	43
Cinder Sidewalks Built	53
Cleaning Sewers	140
Cleaning Streets	63
Cleaning Catch Basins	113
Cleaning Connections	134
Cleaning Settling Basins	139
Concrete Pavement Repaired	62
Concrete Sidewalks Top-dressed	90
Concrete Crossings Repaired	98
Concrete Sidewalks Repaired	99
Culverts	157
Flushing Sewers	136
General Treasury Fund Receipts	11
Grading Sidewalks	40
Granite Pavement, Hassam Foundation, Bridge St.	169
Granite Pavement, Hassam Foundation, Merrimack St.	170
Granite Pavement, Hassam Foundation, Middlesex St.	171
Granolithic Sidewalks Laid	97
Granolithic Sidewalks Repaired	98
Gravel Streets Graded and Re-surfaced	158
Gutters Paved	104
Gutters Repaved	105
Granite Block Pavement Laid	159
Highways and Streets, Amount Expended Since 1900	174
Highways and Streets, Work Done Since 1900	175
Miles of Paved Streets	10
Macadamized Streets Top-dressed	168
New Crossings	38
New Walls	156
New Edgestones Laid	166
New Sidewalks Built	172
Oiling Streets	165
Painting Bridges	112
Permits Issued in 1909	154
Personal Property, Street Department	12
Personal Property, Street Watering Department	26

	PAGE
Personal Property, Boulevard.....	27
Personal Property, Sewer Department	29
Relaying Crossings	39
Resetting Edgestones	160
Repairing Sidewalks	42
Repairing Connections	133
Repairing Bridges	111
Repairing Basins	142
Repairing Manholes	144
Repairing Boulevard and Varnum Avenue.....	163
Sidewalks, Resolutions Passed but not Completed	44
Sidewalks Top-dressed	40
Sidewalks Cut Down.....	41
Sidewalks Widened	41
Sidewalks Relaid	164
Sidewalks Accepted	48
Streets Laid Out and Accepted	46
Streets Repaired	49
Streets Repaired with Cinders	52
Surfacing Streets with Cinders	167
Sweeping Streets	87
Summary of Street Department Expenditures	106
Summary of sewerage statistics	147
Sundry Work	108
Streets Macadamized	155
Streets Repaved	162
Sewer Maintenance Summary	146
Table of Superintendents	8
Table of Annual Appropriations	9
Table of Sewers Built in 1909	
Table of Smooth Pavements	

SUPERINTENDENTS OF STREETS.

TABLE SHOWING THE DIFFERENT SUPERINTENDENTS FROM THE
YEAR OF INCORPORATION OF THE CITY OF LOWELL.

1836	*Alva Mansur	
1837-1838	*Chester A. Blodgett	
1839-1842	*Luther Eames	
1843-1845	*William A. Swan	
1846-1849	*Joseph Griffin	
1850	*Abiel Rolfe	(to April 1st)
1850-1857	*William M. Smith	(from April 1, 1850)
1858-1866	*Wilder Bennett	
1867-1872	*Luther Richards	
1873-1884	*John C. Woodward	
1885-1886	Charles H. Hanson	
1887-1888	Edward Cawley	
1889-1891	Horace P. Beals	
1892-1895	Robert E. Crowley	
1896	*Cleveland J. Cheney	(to Feb. 19, 1897)
1897	Charles Callahan	(from Feb. 20th to Mar. 9th)
1897	George L. Fowler	(from Mar. 10th)
1898-1900	†*Cleveland J. Cheney	
1901	Patrick F. Brady	
1902-1904	Laforest Beals	(resigned May 24, 1904)
1904	Frederick W. Farnham	(appointed May 25th)
1905-1908	Charles J. Morse	
1909	Newell F. Putnam	

*Deceased

†*Died in office

TABLE OF ANNUAL APPROPRIATIONS.

NAME OF APPROPRIATIONS	Bal. Cr. Jan. 1, '09	Annual Appro.	Additional Appro.	Loans	Receipts	Total Receipts.	Expendi- tures.	Balance to G. T. Fund.	Balance to 1910.
STREETS, Regular,									
Salaries		\$ 4,000 00			\$ 45 95	\$ 4,045 95	\$ 4,000 18	\$ 45 77	
Wages		106,000 00	\$2,751 35		1,707 59	110,458 94	110,458 94		
Other Expenses		36,500 00	2,000 00		53,527 20	49,695 83	49,695 83	3,831 37	
New Sidewalks		3,000 00	770 81			5,770 81	5,770 81		
		\$151,500 00	\$5,522 16		\$16,780 74	\$173,802 90	\$169,925 76	\$ 3,877 14	
STREETS, Special,									
Painting Moody St. Bridge	\$ 924 35				\$ 4 50	\$ 928 85	\$ 911 27	\$ 17 58	
Macadamizing Foster St., etc.	3,519 26					3,519 26	1,384 76	2,134 50	
Repairing Boulevard & Varnum Av.				\$ 6,500 00		6,500 00	6,500 00		
Paving Middlesex St., etc.				64,000 00	24 32	64,024 32	55,374 69	6,000 00	\$2,649 63
Repairing Cabot St. Bridge				2,900 00		2,900 00	2,531 13	368 87	
	\$4,443 61			\$73,400 00	\$ 28 82	\$ 77,872 43	\$ 66,701 85	\$ 8,520 95	\$2,649 63
SEWER MAINTENANCE,									
Wages		\$12,000 00			\$ 2,940 86	\$ 14,940 86	\$ 14,517 80	\$ 423 06	
Other Expenses		3,000 00			7,620 64	10,620 64	8,424 02	2,196 62	
		\$15,000 00			\$10,561 50	\$ 25,561 50	\$ 22,941 82	\$ 2,619 68	
WATERING STREETS,									
Wages		\$ 4,200 00			\$ 40	\$ 4,200 40	\$ 4,196 54	\$ 3 86	
Other Expenses		12,800 00	\$ 412 13			13,212 13	13,212 13		
		\$17,000 00	\$ 412 13		\$ 40	\$ 17,412 53	\$ 17,408 67	\$ 3 86	
SEWER CONSTRUCTION,									
Regular				\$50,000 00	\$ 1,177 02	\$ 51,177 02	\$ 50,277 08	\$ 899 94	
Oakland Sewer				6,000 00	124 72	6,124 72	5,761 49	363 23	
Wigginville Sewer	\$2,427 34				26 75	2,454 09	1,651 05		\$ 823 04
	\$2,427 34			\$56,000 00	\$ 1,328 49	\$ 59,755 83	\$ 57,609 62	\$ 1,263 17	\$ 823 04

MILES OF PAVED STREETS.

JANUARY 1, 1910.

Brick .....	.177 miles	
Asphalt	1.93	"
Asphaltina	1.66	"
Stone block	16.054	"
Wood block	0.256	"
Bitulithic.....	1.31	"
Macadam.....	35.56	"
Hassam	0.437	"
	<hr/>	
	57.384	"

GENERAL TREASURY FUND RECEIPTS.

REVENUE FROM STREET AND SEWER DEPARTMENTS.

Received from sale of materials.

Dynamite	\$ 3 80
Manhole castings, etc.	7 98
Paving blocks	27
Brick	3 00
Crushed stone	61 80
Old hose, rubber, etc.	22 80
Cement bags	50

Received for use of steam roller, etc.

Steam roller	131 25
Marine pumps	25 00

Received for service.

Weighers' fees	30
Flushing sewer	3 94

Received from assessments.

Sewer	11,258 37
Sidewalk	3,451 40
Street watering	18,182 03

\$33,152 44

PERSONAL PROPERTY.

Schedule of Personal Property Belonging to the Street Department.

Tools in yard, boxes and storeroom.

6 tape measures	\$ 10 80
4 squares	3 65
8 saws	5 60
34 chains	34 00
6 levels	9 00
184 points and hand drills	36 80
21 grub axes	21 00
10 hand hammers	6 00
122 picks	91 50
67 bars.....	67 00
9 iron paving mauls	13 50
4 wooden paving mauls	4 00
33 old stone hammers	24 75
5 new stone hammers	7 50
15 frost hammers	30 00
109 pick handles	38 15
5 oil cans	1 00
12 tool boxes	120 00

PERSONAL PROPERTY—Continued.

9 sighting sticks	\$ 3 60
8 paving hammers	8 00
30 frost wedges	15 00
40 stone wedges	20 00
25 axes	18 00
14 water pails	2 80
18 dippers	1 80
3 trowels	1 50
7 rakes	4 20
60 hoes	63 00
20 whiffletrees	10 00
64 hand steel	12 80
7 tamping irons	3 50
7 plow points	14 00
438 grade stakes	17 52
200 feet $\frac{3}{4}$ inch hose.....	16 00
11 striking hammers	11 00
13 tamping bars	13 00
3 monkey wrenches	3 75
4 claw hammers	2 00
9 wheelbarrows	9 00

PERSONAL PROPERTY—Continued.

3 stoves	\$ 15 00
93 push brooms	18 60
2 small chains	1 00
80 round point shovels	40 00
14 square point shovels	7 00
150 snow shovels	45 00
5 stone forks	3 75
5 ice picks	2 50
7 stone pickers	3 00
9 drill spoons	1 35
3 snatch blocks	12 50
1 roll rubber belting	7 50
3 dutchmen	75 00
6 wheelbarrow wheels	3 00
400 feet hydrant hose	230 00
9 pieces roller grates	4 00
9 old rubbish barrels	18 00
24 new rubbish barrels	100 00
4 new Archibald cart wheels	111 00
1 hard pan plow	15 00
2 road plows	18 00

PERSONAL PROPERTY—Continued.

2 stone drags	\$ 6 00
1 set platform scales	275 00
2 cart jacks	2 00
1 1-horse truck	25 00
30 feet old flagging	7 00
1 oil tank	40 00
1 bbl. cylinder oil	16 25
150 gals. kerosene oil	15 00
37 boxes exploders	92 50
2 stable brooms	75
4 roller flags	5 75
6 brass hydrant reducers	25 00
6 cans carriage oil	1 50
3 cans harness dressing	1 25
47 cans metal polish	11 75
43 bottles horse medicine	10 00
4 lengths steam drill hose	50 00
10 packages washing powder	1 00
12 whisk brooms	1 20
3 packages lamp black	45
9 new horse bits	9 00

PERSONAL PROPERTY—Continued.

6 old horse bits	\$ 3 00
24 sponges.....	10 00
15 mane brushes	11 00
46 horse brushes	27 00
24 bars harness soap	2 50
2 boxes Garlock packing	5 00
6 boxes shoe thread.....	4 50
5 boxes axle washers	1 25
3 padlocks	2 25
2 whetstones	20
2 files	30
13 balls twine	4 00
6 curry combs	1 50
6 cans Philadelphia grease	9 60
25 lbs. shims and wedges	2 50
6 new scraper arms	15 00
2 pails hoof packing	3 00
2 ladles	3 00
1 bale waste	5 00
4 bags asbestos.....	10 00
76 sparrow brooms	17 50
1 adz	2 00



GRANITE PAVEMENT, HASSAM CONCRETE FOUNDATION, BRIDGE ST. FROM MERRIMACK SQUARE, NORTHERLY

PERSONAL PROPERTY—Continued.

80 street blankets	\$ 120 00
91 stable blankets	91 00
23 new sparrow pans.....	34 50
38 old sparrow pans	19 00
5 new push brooms	8 50
12 old push brooms	4 00
26 cakes hand soap	2 60
3 new tube scrapers.....	6 00
2 2-inch brass valves	10 60
1 jack screw	5 00
12 long handled shovels	8 00
6 hay forks	4 50
14 new feed baskets	19 60
56 old feed baskets	28 00
40 long handled sparrow shovels..	20 00
165 stone hammer handles	30 00
72 new pick handles	52 50
140 broom handles	12 00
1 pair chain tongs	7 00
3 heavy wrenches	14 00
6 new Archibald hubs	20 00

PERSONAL PROPERTY—Continued.

100 surcingles	\$ 15 00
1 cross cut saw	3 00
150 loads sand	150 00
14 snow plows	140 00
2 gutter plows	20 00
4 iron pails	2 00
10 tons pea stone	12 00
12 machine brooms	120 00
2 hand derricks	25 00
1 car bar	1 00
3 clocks	1 50
2 coal hods	50
4 hand rollers	8 00
250 ft. fire hose	75 00
10 stone hand sets	3 30
25 stone bounds	41 25
1 set runners.....	10 00
13 sand screens	25 00
1 claw bar	1 00
300 feet 1½ inch iron pipe.....	3 00
4 stillson wrenches.....	10 00

PERSONAL PROPERTY—Continued.

4 sets falls	\$ 15 00	
5 tons coal	34 25	
1 steam heating plant	200 00	
124 lanterns	62 00	
4 ash cans	8 00	
2 oil cans	30	
$\frac{1}{2}$ bbl. axle grease	11 00	
2 pairs rubber boots	5 00	
	<hr/>	\$ 3,611 22

Ledge, Dracut.

Crusher and buildings complete ..	\$12,000 00	
Blacksmith shop and tools	100 00	
500 tons crushed stone	600 00	
2 new drills	300 00	
1 old drill	50 00	
1 pony drill	30 00	
78 feet drill steel	42 70	
1 battery and wires	10 00	
	<hr/>	13,132 70

Fletcher St. ledge.

1922 feet old flagging	\$ 384 40	
Lot brow stone.....	25 00	

PERSONAL PROPERTY—Continued.

Fletcher St. ledge—Continued.

10,000 new paving blocks.....	\$ 540 00	
400,000 old paving blocks	8,000 00	
	<hr/>	\$ 8,949 40

Office furniture, supplies, etc.

1 roll top desk	\$ 10 00	
1 old safe.....	5 00	
4 chairs	2 00	
1 typewriter	100 00	
1 adding machine	300 00	
1 filing cabinet and cards	150 00	
	<hr/>	567 00

Stone Landing.

350 feet edgestone	\$ 120 75	
600 feet curved edgestone	408 00	
100 feet new flagging	40 00	
1 set falls.....	5 00	
2 snatch blocks	4 00	
	<hr/>	577 75

Magazine.

950 pounds 1 $\frac{1}{4}$ inch dynamite	\$ 156 75	
650 pounds 1 $\frac{1}{2}$ inch dynamite	97 25	
	<hr/>	254 00

PERSONAL PROPERTY—Continued.

Harness Shop.

Stock and tools	\$	50 00	
		<hr/>	\$ 50 00

Stable.

10 tons hay	\$	220 00	
1500 bushel oats		750 00	
100 pounds salt		1 00	
1100 pounds shorts		13 00	
10 tons straw		250 00	
80 halters		8 00	
2 hay cutters		5 00	
		<hr/>	1,247 00

Horses, Carriages, etc.

49 draught horses	\$	9,800 00	
8 driving horses		1,600 00	
3 sleighs		60 00	
7 carriages		700 00	
6 robes		15 00	
3 Baker blankets		10 00	
3 covers		6 00	
		<hr/>	12,191 00

PERSONAL PROPERTY—Continued.

Carts, Sleds, etc.

2 double stone jiggers	\$ 125 00	
2 single stone jiggers	90 00	
3 machine sweepers	200 00	
27 double sleds	1,500 00	
27 double carts.....	2,025 00	
14 single carts	1,200 00	
12 single sleds.....	300 00	
1 express wagon	92 50	
2 old lumber wagons	30 00	
1 hand cart	2 00	
3 sparrow carts	50 00	
	<hr/>	\$5,614 50

Steam Rollers, etc.

5 steam rollers	\$ 9,000 00	
1 road machine	90 00	
1 concrete mixer	700 00	
1 portable crusher	500 00	
	<hr/>	10,290 00

Blacksmith Shop.

20 kegs horse shoes	\$ 80 00	
3 forges and tools	150 00	

PERSONAL PROPERTY—Continued.

Blacksmith Shop—Continued.

3 electric motors and blowers	\$ 75 00
4 anvils	40 00
1 drill press	35 00
1 tire roll	20 00
1 mandrel	25 00
1 screw plate, tap and dies	50 00
3 vises	35 00
2 sets shoers' tools	10 00
1 blacksmith's sow	5 00
2 lifting jacks	10 00
1 jack screw	3 00
2 bitt braces	1 50
3 sledge hammers	3 00
1 bolt cutter	6 00
3 monkey wrenches	3 00
1 combination wrench	2 00
1 ton assorted iron	52 00
3 tons assorted steel	25 00
2300 assorted bolts	69 00
100 pounds assorted blank nuts . .	12 00
40 pounds assorted washers	4 00
35 pounds assorted rivets	4 50
1 chain hoist	36 00

 \$756 00

PERSONAL PROPERTY—Continued.

Carpenter Shop.

35,000 feet spruce lumber	\$750 00
600 feet oak lumber	54 00
400 feet birch boards	48 00
100 feet maple boards	10 00
300 feet fence rail	15 00
100 fence pickets	4 00
50 fence posts	12 00
6 crow bars	6 00
2 claw bars	1 00
4 shovels	2 00
3 post hole shovels	1 50
4 wheelbarrow trays	4 00
1 axe	1 00
6 striking hammers	2 00
2 claw hammers	1 00
1 cross cut saw	3 00
3 hand saws	6 00
12 sled poles	18 00
1 bridge auger	50

PERSONAL PROPERTY—Continued.

4 lifting hooks	\$ 4 00	
1 extension ladder	7 00	
1 set falls and rope	5 00	
1 grindstone	5 00	
2 adzes.....	3 00	
1 boring machine	5 00	
3 cant hooks	3 00	
2 hand screws	1 50	
2 monkey wrenches	1 00	
4 drag planks	4 00	
20 kegs spikes.....	50 00	
5 kegs nails	12 50	
8 doz. spokes	15 84	
1 roll tar paper.....	2 00	
	<hr/>	\$ 1,057 84
		<hr/>
		\$58,298 41

PERSONAL PROPERTY.

Schedule of Personal Property belonging to the Street
Watering Department.

25 horses	\$4,000 00
12 set double harness	300 00
22 halters	17 00
25 collars	35 00
15 sprinkling carts	2,000 00
1 monkey wrench	75
2 neck yokes	2 00
5 double carts.....	500 00
22 feed baskets.....	10 00
2 pair tongs	3 00
2 step ladders	5 00
11 horse brushes	5 50
1 large stillson wrench	1 00
1 feed truck	4 00
8 shut-off wrenches	8 00
44 blankets	88 00
11 sponges.....	2 20
2 Jenkins valves.....	8 00
2 wagon jacks.....	6 00
19 street car hydrants.....	2,090 00
	<hr/>
	\$9,085 45

PERSONAL PROPERTY.

Schedule of Personal Property belonging to the Boulevard.

1 sprinkling cart	\$ 75 00
4 iron rakes	1 35
2 hoes	1 00
7 lawn mowers	14 00
2 sickles	1 00
1 sod cutter	50
1 sand screen	1 50
1 pair edging shears	1 50
1 grindstone	4 00
1 storehouse	200 00
3 wheelbarrows	4 50
2 wooden mallets	75
2 hand sprinklers	1 50
1 wooden maul	25
3 tin dippers	30
4 wooden rakes	2 00
2 push brooms	1 00
1 broom	25
1 long handled shovel	50

PERSONAL PROPERTY—Continued.

2 settees	\$	5 00
4 picks		1 75
6 round pointed shovels		3 00
8 square pointed shovels		4 00
3 lanterns		1 50
1 windmill		1,800 00
1 hand saw		50
2 axes		2 00
4 scythes		4 00
1 hay fork		1 00
3 ladders		12 00
1 monkey wrench		50
1 grub axe.....		75
1 screw driver.....		25
1 screen		2 00
5 stone forks		2 00
4 oil cans		1 00
4 valves and arms		15 00
1 ash can		50
1 water pail		25
		<hr/>
		\$2,167 90

PERSONAL PROPERTY.

Schedule of Personal Property belonging to the Sewer Department.

20 parts of old grates	\$ 12 00
20 crow bars	20 00
9 crabs for shear poles	225 00
150 feet drain pipe	5 00
14 water barrels	14 00
5 mortar beds	5 00
6 sand screens	30 00
75 catch basin steps	22 50
8 square feet packing	1 33
1 piper's die and stock	17 00
6 tool boxes for boilers	23 00
2 pair tongs	4 00
12 hydrant wrenches	11 00
14 jack bars	3 50
1 paving maul	2 75
4 portable forges	230 00
15 tool boxes	140 00
2 sewer wheelbarrows	2 00
3 dutchmen for hydrants	38 50
9 wooden rolls	2 00

PERSONAL PROPERTY—Continued.

5 engine houses	\$ 90 00
6 batteries	120 00
8 steam drills	1,600 00
6 masons' trowels	6 00
400 feet drill steel	80 00
22 caulking tools	10 00
6 hand drill hammers	3 00
6 tape lines	6 00
6 pounds shims and wedges	3 20
40 striking hammers	80 00
12 stone hammers	24 00
8 frost hammers	24 00
2 fiddle blocks	10 00
150 pick handles	15 00
2 pounds oakum	08
1 keg nails	2 75
16 sheave blocks	2 60
12 catch basin dippers	3 00
8 iron mauls	8 00
14 wooden mauls	16 00
12 sets shear poles	100 00

PERSONAL PROPERTY—Continued.

1 Trainer sewer machine	\$ 1,400 00
12 jack screws	24 00
3 kegs 30d nails	6 00
200 lanterns	100 00
5 pair long leg rubber boots.....	17 50
2 iron pails	2 00
300 feet $\frac{3}{4}$ inch rubber hose	18 00
1 set branding irons	2 00
6 hoes	3 00
14 post hole scoops	28 00
200 round point shovels	100 00
150 square point shovels	75 00
25,000 feet sewer lumber	250 00
6 marine pumps	50 00
150 feet pump hose	150 00
1-60 gal. oil can	7 00
3 steam drill pumps	3 00
20 drilling spoons.....	10 00
9 hand saws	9 00
5 barrels Portland cement	8 32
5 adzes.....	10 00

PERSONAL PROPERTY—Continued.

9 axes	\$ 9 00
8 hatchets	6 00
15 packages carriage bolts	15 00
7 spirit levels	10 50
12 measuring sticks	11 00
4 gals. blue paint	8 00
9 claw hammers	4 50
21 padlocks	20 00
20 feet steam drill hose	2 00
1 box repairs for marine pump	25 00
8 strainers for marine pump	7 00
8 monkey wrenches	4 00
3 Lidgewood engines	2,500 00
1 Hoadley engine	350 00
1 upright boiler	250 00
2 derricks, complete	1,000 00
3 submerged pumps	400 00
1 driving horse	200 00
4 draught horses	475 00
1 Concord wagon	175 00
1 light sleigh	40 00



GRANITE PAVEMENT, HASSAM CONCRETE FOUNDATION, MERRIMACK SQUARE

PERSONAL PROPERTY—Continued.

4 single sleds.....	\$125 00
4 single dump carts	300 00
2 double trucks	350 00
5 stable blankets	15 00
5 street blankets	15 00
6 grub axes	3 00
150 picks	100 00
9 large chains	36 00
4 steam drill boxes	16 00
6 tin dippers	60
2 spades.....	1 00
25 pounds waste	2 50
12 spanner wrenches	8 00
2 hose nozzles	23 00
2 sets taps and dies	29 00
21 sling chains	10 50
9 sets tackle and falls	38 50
150 gals. kerosene oil	15 00
3 neck yokes	5 00
25 wooden pails	2 50
6 frost wedges	6 00

PERSONAL PROPERTY—Continued.

2 pipe vises	\$ 30 00
83 hand drills	18 00
2 row boats	20 00
6 sheathing dogs	17 00
15 iron tampers	7 50
18 scoop handles	3 50
8 crosscut saws.....	16 00
9 wooden wheelbarrows	18 00
14 iron wheelbarrows	42 00
100 feet Canada matched boards	3 00
1 roll canvas	25 00
7 manhole castings	105 00
5 single harness	90 00
1 light harness	20 00
1 square wagon	40 00
10,000 bricks.....	85 00
2 tons coal	10 00
5 halters	5 00
1 work bench	4 00
1 stove	2 00
3 paving hammers	3 75

PERSONAL PROPERTY—Continued.

6 sets wires for batteries.....	\$ 11 00
2 sets blacksmiths' tools	9 00
5 anvils	17 50
12 oil cloth suits	36 00
20 feet 2½ inch hose.....	12 00
8 oil cans	6 00
2 paint brushes	50
2 sets engineers' tools	7 00
1 tool house and fixtures	2,000 00
1 table	5 00
1 2-wheel dump cart.....	20 00
1 bolt cutter.....	7 00
1 sprinkling can	50
5 feet plug steel	65
1 vise	9 00
4 water tubs	1 00
1 hand drill	7 00
1 pair short rubber boots	2 00
80 lantern globes	4 00
10 edgestone castings	20 00
7 long handled shovels	6 00

PERSONAL PROPERTY—Continued.

1 scythe snath	\$ 1 00
500 feet wrought iron pipe	62 50
3 ejectors.....	34 00
1 oil tank	38 00
120 feet steam drill hose.....	88 80
3 stillson wrenches.....	7 50
1 magazine	365 00
2 dynamite heaters	5 00
12 diaphragms for pumps.....	21 00
5 boxes exploders	41 25
1,500 feet 2½ inch hydrant hose	375 00
5 claw bars	5 00
5 plank cutters	5 00
4 waterproof covers	10 00
1 18-inch lathe	462 75
1 4-jaw chuck	23 10
1 Little Giant Chuck	6 25
1 Prentis Brothers' drill	234 00
1 grinder	29 00
1 Morse twist drill	16 40
Shafting and 5 10-inch hangers	22 50

PERSONAL PROPERTY—Continued.

$\frac{1}{2}$ inch to 2 inch reamers	\$	93 49
2 Armstrong tools		3 50
$\frac{1}{4}$ inch to 1 inch taps		18 50
1 bolt set		18 50
1 motor		30 00
2 emery wheels.....		11 20
1 set lathe dogs		6 85
7 pulleys		20 65
Belting.....		50 51
1 Harrington Screw hoist		48 60
2 pile drivers		200 00
1 sewer cleaning machine		300 00
1 set pipe shear poles		50 00
4 banjo lights		6 00
1 Duplex telephone		15 00
		<hr/>
		\$17,369 75

REPORT OF THE

NEW CROSSINGS.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	STOCK.	TOTAL.
Central.....	At North St.	38.0	\$ 12 68	\$ 5 50	\$12 43	\$ 30 61
Central.....	At Centre St.	62.0	24 44	17 00	19 48	60 92
Central.....	At #512	28.0	16 94	6 80	10 62	34 36
Central.....	At Cottage St.	28.0	9 00	3 00	9 45	21 45
Carter	At Livingston St.	43.0	18 32	3 67	15 95	37 94
Crosby	At Butler Ave.	30.0	16 81	6 48	9 93	33 22
Gorham	At Maple St.	45.0	26 67	12 43	15 98	55 08
		274.0	\$124 86	\$54 88	\$93.84	\$273 58

RELAYING CROSSINGS.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	STOCK.	TOTAL.
			\$			\$
Bridge	At French St.	38.5	8 10			8 10
Bridge	At Canal St.	18.2	5 20			5 20
Bridge	At Fairweather Ave.	12.0	3 10			3 10
Cabot	At Ford St.	54.0	7 75			7 75
Cabot	At Cheever St.	82.0	13 75			13 75
Cheever	At Aiken St.	52.0	6 75			6 75
Cheever	At Tucker St.	50.0	6 06	\$ 1 50		7 56
Fletcher	At Broadway	39.0	7 13			7 13
Lawrence	At Hudson St.	26.0	6 75			6 75
Liberty	At Osgood St.	20.0	2 75			2 75
Liberty	Line of Liberty St.	13.0	1 50			1 50
Merrimack	At Canal St.	58.0	9 63			9 63
Middlesex	At Revere St.	28.0	4 50			4 50
Middlesex	At King St.	36.0	7 00			7 00
Middlesex	At Brewery Court	16.1	3 50			3 50
Middlesex	At Thorndike St.	37.2	7 50			7 50
Nichols	At East Pine St.	62.0	8 52	4 72		13 24
Pine	At Wilder St.	56.0	12 07			12 07
Tanner	At St. Hyacinth St.	45.0	6 37	7 06		13 43
Tanner	At end of paving	34.0	10 13	7 17		17 30
		777.0	\$138 06	\$20 45		\$158 51

GRADING SIDEWALKS.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Chelmsford	200	\$ 71 78	\$ 18 13	\$ 89 91
Gorham	15	1 38		1 38
Lang	625	44 02	40 00	84 02
Middlesex	720	144 05	97 75	241 80
Upham	150	9 00	5 00	14 00
	1,710	\$270 23	\$160 88	\$431 11

SIDEWALKS TOP-DRESSED.

STREETS.	LIN. FT.	LABOR.	TEAMING.	STOCK.	TOTAL.
By.....	800	\$ 5 62	\$4 50	\$13 20	\$ 23.32
Billings	1,300	10 15	7 50	21 12	38 77
Bridge	600	5 62	4 50	10 56	20 68
Carter	150	2 13	1 75		3 88
Park View Ave...	310	1 43	5 50	7 20	14 13
	3,160	\$24 95	\$23 75	\$52 08	\$100 78

SIDEWALKS CUT DOWN.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Boynton	850	\$ 25 50	\$10 50	\$ 36 00
Bridge	240	13 35	3 85	17 20
Crawford.....	450	38 24	16 50	54 74
Dalton.....	150	11 06	11 00	22 06
Smith	135	7 00	4 00	11 00
Lawrence	260	15 94	3 85	19 79
Lawson	100	4 69	2 13	6 82
West Sixth	300	17 52	6 00	23 52
	2,485	\$133 30	\$57 83	\$191 13

SIDEWALKS WIDENED.

STREET.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Bridge	50.0	\$1 97	\$16 50	\$18 47

REPAIRING SIDEWALKS.

STREETS.	LABOR.	TEAMING.	TOTAL.
Chelmsford	\$10 63	\$ 7 00	\$17 63
Concord	7 38	16 75	24 13
Dutton.....	8 56	5 50	14 06
Eleventh	4 00		4 00
Epping.....	4 00	7 25	11 25
Fourth Ave.	33 00	10 00	43 00
Gorham	81	1 00	1 81
Humphrey	1 25	2 10	3 35
Holyrood Ave.	8 25	10 50	18 75
Kirk	29	53	82
Lawrence.....	8 00	12 75	20 75
Mt. Hope.....	27 00	10 00	37 00
Moody	50	1 00	1 50
Middlesex	63	1 50	2 13
Prospect	76	70	1 46
Race.....	28	53	81
Sixth	6 75		6 75

REPAIRING SIDEWALKS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Suffolk	\$ 2 50		\$ 2 50
Wentworth Ave.	76	\$ 70	1 46
Woburn	8 50	15 00	23 50
	\$133 85	\$102 81	\$236 66

CINDER CROSSINGS.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAM- ING.	TOTAL.
Beaver	At Lakeview Ave.	40	\$ 1 06	\$ 2 80	\$ 3 86
Bishop	At Boylston St.	40	3 94	10 00	13 94
Davenport ..	At Tyler Park	80	2 10	2 18	4 28
Westford	At Tyler Park	350	4 19	4 38	8 57
		510	\$11 29	\$19 36	\$30 65

SIDEWALKS.

RESOLUTIONS PASSED BUT SIDEWALKS NOT COMPLETED.

STREETS.	LOCATION.	PASSED.	Lin. Ft.	Sq. Yds.	Width in Ft.
			Edgestone	Concrete	
			TO BE LAID.		
		1909.			
Bowden.....	Both sides, from Chip- pewa St. to land B. & M. R. R.	July 19	1,194.0		6
Carter	South side, from point 149.4 ft. east of Gor- ham St. to CarterAve.	Dec. 11		99.5	6
Corbett	Both sides, from Gor- ham St. to easterly end of accepted street	July 19	1,218.8	744.8	6
Crawford....	Both sides, from White St. to Fourth Ave. ..	Sept. 11	660.0		6
Dalton.....	Both sides, from Exeter St. to Farmland Rd.	Dec. 28	691.0		6
Dutton	West side, sidewalk widened 5 ft. from Market St. to Music Hall Ave.	Dec. 11	135.0		
Ennell	North side, from Cum- berland Rd. to Hil- dreth St., south side, from W. Sixth St. to Hildreth St., where not laid	Sept. 11	1,302.4		6
May	East side, from Twelfth St. to Thirteenth St., where not laid	Dec. 11		256.5	5
Perry	East side, from Andover St. to Sherman St., where not laid	July 14	1,286.4		6

SIDEWALKS—Continued.

STREETS.	LOCATION.	PASSED.	Lin. Ft. Edgestone	Sq. Yds. Concrete	Width in Ft.
			TO BE LAID.		
Perry	West side, from Andover St. to land Amer. Mason Safety Tread Co.	1909. July 14	 1,072.1	 	 6
Sheldon	North side, from Ware St., westerly 137 ft. .	July 7	137.4	84.0	6
Victor	Both sides, from Ennell St. to Boisvert St. .	Sept. 11	823.8		6
			8,520.9	1,184.8	

STREETS LAID OUT AND ACCEPTED IN 1909.

STREETS.	LOCATION.	WIDTH IN FT.	LENGTH IN FT.
Corbett	From Gorham St., east- erly	40	609.4
Dalton	From Exeter St. to Farmland Rd.	40	415.7
Dracut	From White St. to Sixth Ave.....	40	1,040.0
Endicott	From White St. to Sixth Ave.....	40	937.6
Kyan	From School St., wester- ly	30	55.0
Rivercliffe Rd. .	From E. Merrimack St. to premises Geo. H. Pillsbury	50	388.1
Wright	From Woodward Ave. to West Fifth Ave.	30	219.0
			3,664.8

Number of miles of Accepted Streets, Jan. 1, 1909 . . .	134.75
Number of miles of Streets Accepted in 1909 . . . . .	.69
<hr/>	
Number of miles of Accepted Streets, Jan. 1, 1910	135.44

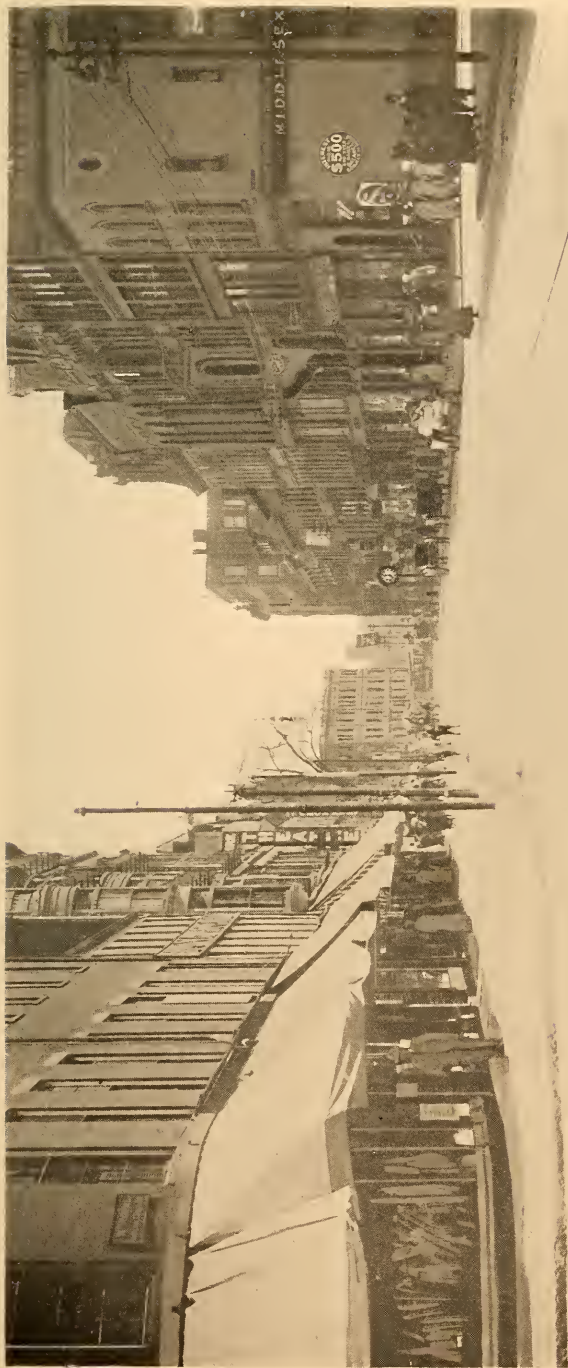
The grade of Cornell Street was re-established by Resolution, passed July 14, 1909.

The grade of Cabot Street from Ford Street to Hall Street was re-established by Resolution, passed September 30, 1909.

The lines and grades of Clark Road were established by Resolution, passed December 28, 1909.

SIDEWALKS ACCEPTED IN 1909.

STREETS.	LOCATION.	DESCRIPTION.	PASSAGE.
Beacon . .	East side, from Eleventh St., southerly 163 ft. .	Edge. and Con.	May 19
Bellevue	West side, from point 260 ft. north of Thayer St., northerly 50 ft.	Concrete	June 18
Bridge . .	West side, from Jewett St., northerly 96.4 ft. . .	Concrete	Aug. 4
Crawford	South side, from point 99.5 east of east line White St., easterly 42.2 ft.	Edge. and Con.	Nov. 12
Eleventh	Both sides, from Beacon St. to Merrill Ave. . . .	Edge. and Con.	May 19
Grace . .	West side, from Liberty St., southerly 203 ft. and from point 302 ft. south of Liberty St., southerly 100 ft.	Concrete	June 18
Hildreth	South side, from point 203.5 ft. east of Hampshire St., easterly 30 ft.	Concrete	June 18
Moody .	North side, from Riverside St., westerly 100 ft.	Concrete	Dec. 22
Riverside	West side, from Moody St., easterly 109.6 ft. .	Concrete	Dec. 22
Smith . .	West side, from Horn St. southerly 67 ft.	Concrete	Sept. 11



GRANITE PAVEMENT, HASSAM CONCRETE FOUNDATION, MERRIMACK ST. FROM KIRK ST., EASTERLY

STREETS REPAIRED IN 1909.

STREETS.	LABOR	TEAMING.	TOTAL.
Andover	\$ 2 00	\$ 5 00	\$ 7 00
Broadway	2 63	3 10	5 73
Butterfield	3 25		3 25
Butman Road	10 47	16 55	27 02
Burlington Ave.	2 44	1 40	3 84
Colonial Ave.	50	45	95
Cross	7 00	3 85	10 85
Chambers	5 94	2 10	8 04
Clark Road	2 65	1 23	3 88
Chelmsford	14 63	16 50	31 13
Chapel	2 65	3 00	5 65
D	3 75	5 50	9 25
Davis	50	1 05	1 55
Dummer	28	53	81
East Merrimack	23 25	40 00	63 25
Fayette	2 75	3 85	6 60
Fairmount.....	15 88	10 31	26 19

STREETS REPAIRED IN 1909—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Grove	\$ 4 80	\$ 5 50	\$10 30
Hadley.....	33 19	17 55	50 74
Hastings	5 00	10 00	15 00
Hutchinson	46 26	22 00	68 26
High.....	2 47	3 60	6 07
King.....	2 25	3 00	5 25
Lawrence.....	6 75	5 50	12 25
Lakeview Ave.	1 00	2 50	3 50
Lincoln	26 17	16 50	42 67
Middlesex	15 25	14 00	29 25
Mammoth Road	3 81	2 10	5 91
Marshall Road	2 63	7 50	10 13
Middlesex	30 80	15 65	46 45
Merrimack.....	1 98	3 68	5 66
Moody	32 92	25 05	57 97
Mt. Washington	1 63	2 00	3 63
Pine	10 64	9 35	19 99
Plummer Ave.	10 47	16 55	27 02

STREETS REPAIRED IN 1909—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Riverside	\$ 2 00	\$ 2 63	\$ 4 63
School	32	35	67
Stackpole	17 83	32 00	49 83
Smith	6 50	10 50	17 00
Stevens	13 09	15 00	28 09
Shattuck	56	88	1 44
Thorndike	8 16	10 53	18 69
Varnum Ave.	3 94	5 50	9 44
Vernon	9 00	3 00	12 00
Walker	2 50	5 10	7 60
Westford	1 63	17 50	19 13
White	43 28	21 50	64 78
Winter		1 00	1 00
Wentworth Ave.	5 31	2 46	7 77
Woburn	4 50		4 50
	\$457 21	\$424 40	\$881 61

STREETS REPAIRED WITH CINDERS IN 1909.

STREETS.	LABOR.	TEAMING.	TOTAL.
Adams	\$ 1 75	\$ 3 50	\$ 5 25
Bridge	1 75	3 00	4 75
C	7 88	6 00	13 88
Chelmsford	2 25	20 50	22 75
East Merrimack	19 88	30 00	49 88
Merrimack.....	77	1 53	2 30
Old Meadow Road ...	10 13	27 50	37 63
Pine	1 13	3 45	4 58
	\$45 54	\$95 48	\$141 02

CINDER SIDEWALKS BUILT IN 1909.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Apple	990	\$ 17 73	\$25 65	\$ 43 38
Alder	225	11 01	17 50	28 51
Aiken	650	20 70	16 45	37 15
Atlantic	275	5 24	9 37	14 61
Aiken Ave.	100	7 84	4 38	12 22
B	840	10 79	24 00	34 79
Baldwin	200	8 47	10 63	19 10
Barclay	620	12 94	33 00	45 94
Bartlett	150	6 33	11 00	17 33
Barrington	150	8 38	8 50	16 88
Beacon.....	2,530	119 01	80 50	199 51
Billings	1,654	35 08	53 35	88 43
Blodgett	490	31 76	40 50	72 26
Burnside	500	19 50	17 50	37 00
Boynton	1,351	25 77	52 50	78 27
Broadway	300	12 66	8 40	21 06
Bowers.....	410	8 37	15 06	23 43
Bourne.....	300	8 25	5 25	13 50

CINDER SIDEWALKS BUILT IN 1909—Continued.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
By	705	\$14 77	\$31 14	\$ 45 91
Bridge	525	8 63	10 50	19 13
Butman Road	150	11 63	5 00	16 63
Cabot	1,800	51 28	55 00	106 28
Cambridge.....	270	4 25	3 00	7 25
Chase Ave.	250	4 12	3 50	7 62
Cheever	500	12 93	32 50	45 43
Chester	420	8 44	8 44	16 88
Chelmsford	1,495	51 56	84 94	136 50
Clark	45	2 12	1 75	3 87
Cornell	990	24 16	20 50	44 66
Concord	735	7 51	22 50	30 01
Crescent.....	520	11 13	17 50	28 63
Common	225	5 81	14 07	19 88
Crawford	1,431	52 85	40 27	93 12
Corey	60	1 39	1 90	3 29
Dracut	175	5 24	4 65	9 89
Daly	75	3 44	7 50	10 94

CINDER SIDEWALKS BUILT IN 1909—Continued.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Dalton	170	\$ 4 19	\$ 5 25	\$ 9 44
Davenport.....	430	8 54	9 05	17 59
Doane	400	12 38	10 00	22 38
Dummer	170	5 23	5 93	11 16
Ennell	375	12 23	13 00	25 23
East Pine	54	1 75	2 50	4 25
East Merrimack	520	25 75	48 25	74 00
Eighteenth	250	19 00	20 00	39 00
Epping.....	1,200	44 27	102 50	146 77
Eustis Ave.	700	14 07	19 71	33 78
Eugene	340	10 89	30 00	40 89
Exeter	380	9 61	12 60	22 21
Easton	175	5 07	10 50	15 57
Emery	135	68 88	8 10	14 98
Endicott	50	1 05	1 55	2 60
Fayette	225	5 25	6 85	12 10
Fairfield.....	375	8 37	15 00	23 37
Fifth Ave.	240	5 63	7 25	12 88

CINDER SIDEWALKS BUILT IN 1909—Continued.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Fisher	2,185	\$61 43	\$71 65	\$133 08
First	2,226	46 89	95 00	141 89
Florence Ave.	90	4 26	5 00	9 26
Floyd	150	3 50	5 00	8 50
Fort Hill Ave.	150	2 00	2 00	4 00
Fourth Ave.	1,925	50 76	98 50	149 26
Foster	960	21 44	19 69	41 13
Forrest.....	150	6 88	4 20	11 08
Gardner Ave.	1,089	29 42	48 50	77 92
Gershom Ave.....	1,090	22 93	21 88	44 81
Hadley.....	1,150	19 12	14 63	33 75
Hampshire	1,500	30 10	56 87	86 97
Hale	1,030	19 42	57 00	76 42
Hampstead	495	14 73	38 75	53 48
Harvard	125	2 62	3 12	5 74
Hildreth	1,140	43 39	29 13	72 52
Houghton	760	24 07	41 00	65 07
Humphrey	125	4 19	5 60	9 79

CINDER SIDEWALKS BUILT IN 1909—Continued.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Horn	288	\$ 5 87	\$14 00	\$19 87
Inland	310	17 87	18 40	36 27
Jenness	568	15 08	29 05	44 13
Kinsman	1,150	21 88	45 00	66 88
Lang	140	9 63	10 50	20 13
Lamb	425	6 89	5 25	12 14
Lane.....	243	3 26	7 00	10 26
Livingston.....	100	4 19	2 10	6 29
Lenox	150	4 76	9 00	13 76
Lawrence.....	1,755	48 52	58 59	107 11
Lakeview Ave.	2,270	74 73	96 65	171 38
Little	127	4 18	4 75	8 93
Lincoln	190	3 76	10 00	13 76
Lombard	518	9 97	20 38	30 35
Ludlam	345	3 88	9 38	13 26
Lura	250	5 00	7 50	12 50
Mammoth Road	1,140	30 04	25 80	55 84
Manchester	475	3 87	22 50	26 37
Main.....	985	30 19	61 75	91 94

CINDER SIDEWALKS BUILT IN 1909—Continued.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Meadowcroft	175	\$ 6 88	\$ 4 00	\$ 10 88
Midland	180	13 75	22 50	36 25
Middlesex	2,122	75 58	71 78	147 36
Mt. Hope.....	1,505	33 25	52 09	85 34
Morton.....	780	18 76	35 00	53 76
Moody	1,055	53 86	101 55	155 41
Moore.....	100	2 76	3 80	6 56
Mt. Grove	300	8 38	10 50	18 88
Newell	190	4 92	6 30	11 22
Norcross	200	2 34	7 50	9 84
Otis	150	11 01	7 00	18 01
Pawtucket.....	750	15 69	18 60	34 29
Parker	2,310	100 69	137 60	238 29
Perry	30	1 91	2 50	4 41
Pine	790	28 13	37 50	65 63
Plain	1,485	61 77	68 79	130 56
Plummer Ave.	837	49 97	45 00	94 97
Puffer.....	264	8 63	20 00	28 63

CINDER SIDEWALKS BUILT IN 1909—Continued.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Princeton	3,030	\$89 67	\$84 46	\$174 13
Reservoir.....	510	35 76	40 00	75 76
Railroad	150	2 53	4 50	7 03
Roper.....	600	17 25	37 50	54 75
Rockdale Ave.	50	1 35	10 92	12 27
Sarah Ave.	175	6 70	7 00	13 70
School	750	9 70	27 00	36 70
Sixth Ave.....	350	9 54	12 25	21 79
Smith	132	8 25	5 00	13 25
Starbird	30	2 10	1 75	3 85
Stackpole	2,235	79 02	90 85	169 87
Stevens	240	11 75	30 00	41 75
Somerset	200	4 32	7 95	12 27
Suffolk	1,050	20 50	17 51	38 01
Sutherland	1,355	36 81	57 13	93 94
Swift	50	4 75	5 00	9 75
Sidney	640	17 88	18 00	35 88
Thorndike	495	21 96	22 00	43 96

CINDER SIDEWALKS BUILT IN 1909—Continued.

STREETS.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Third Ave.	100	\$ 7 33	\$ 6 20	\$ 13 53
Upham	75	3 44	7 50	10 94
Varnum Ave.	1,200	35 25	70 00	105 25
Victoria	535	18 38	41 50	59 88
Washington	300	6 47	13 13	19 60
Walker.....	564	10 37	11 00	21 37
Warnock	1,165	39 64	112 50	152 14
Wedge	750	16 76	30 00	46 76
Wentworth Ave.	460	11 72	22 25	33 97
Westford	279	7 19	7 87	15 06
West Sixth	1,565	126 10	86 65	212 75
Whiting	470	18 50	35 00	53 50
White.....	490	10 12	13 50	23 62
Willie Ave.	295	4 19	3 50	7 69
Windsor.....	300	4 69	4 69	9 38
Woburn	1,810	74 91	129 93	204 84
Wood	300	10 30	5 10	15 40
	91,987	\$2,845 45	\$3,932 51	\$6,777 96

ASPHALT PAVEMENT REPAIRED IN 1909.

STREETS.	LOCATION.	SQ. YDS.	COST.
Aiken	Between Cheever St. and Aiken St. Bridge	403.02	\$705 27
Hall	At Aiken St.	10.40	18 20
Kirk	At Merrimack St.	81.07	141 87
		494.49	\$865 34

ASPHALTINA PAVEMENT REPAIRED IN 1909.

STREETS.	LOCATION.	SQ. YDS.	COST.
Gorham	Between L. & A. R. R. & Cosgrove St.	297.00	\$ 518 52
Suffolk	Between Liberty Sq. and Broadway	24.92	43 61
Westford ...	Between Chelmsford & Smith Sts.	575.30	1,006 75
Westford ...	Between Smith & Loring Sts.	580.60	1,016 05
		1,477.82	\$2,584 93

CONCRETE PAVEMENT REPAIRED IN 1909.

STREETS.	LOCATION.	SQ. YDS.	COST.
Mammoth Rd. .	East side, between Pawtucket Bridge and Riverside St. (Hard Top Dressing)	123.30	\$ 86 31
Pawtucket.	East side, between No. 171 and Fletcher St. (Hard Top Dressing)	27.60	19 32
Pawtucket.	Between Salem & School Sts. (Hard Top Dressing)	409.40	286 58
		560.30	\$392 21

CLEANING STREETS.

STREETS.	LABOR.	TEAMING.	TOTAL.
A	\$23 86	\$ 2 94	\$ 26 80
Abbott	4 34	38	4 72
Adams	10 44	1 25	11 69
Anderson	1 40	12	1 52
Andover	152 88	15 40	168 28
Appleton	25 21	3 44	28 65
Anne	13 12	1 13	14 25
Albion	9 26	1 00	10 26
Auburn	7 43	76	8 19
Austin	9 86	88	10 74
Arlington	16 02	1 26	17 28
Ash	13 81	1 31	15 12
Alder	13 10	1 19	14 29
Ames	8 94	93	9 87
Andrews	31 04	3 14	34 18
Agawam	22 18	2 25	24 43
Ardell	1 18	12	1 30
Astor	4 43	37	4 80

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Arthur	\$ 5 19	\$ 56	\$ 5 75
Aiken	34 39	3 25	37 64
Autumn	5 19	50	5 69
Atlantic	2 92	25	3 17
Apple	1 51	12	1 63
Branch.....	31 60	3 63	35 23
Bridge	25 02	2 31	27 33
Broadway	40 28	4 00	44 28
Butterfield	15 08	1 37	16 45
Barclay	15 73	1 55	17 28
Bartlett	28 11	2 63	30 74
Bowden	5 19	50	5 69
Beech	19 68	1 75	21 43
Beacon.....	62 73	5 75	68 48
Bowers.....	22 80	2 19	24 99
Billings	32 42	3 00	35 42
Brooks	6 60	69	7 29
Bellevue	15 02	1 62	16 64



GRANITE PAVEMENT, HASSAM CONCRETE FOUNDATION, MIDDLESEX ST., FROM RAILROAD STATION, EASTERLY

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Bassett	\$ 2 80	\$ 24	\$ 3 04
Barrington	6 06	50	6 56
Burt	9 00	1 07	10 07
Belmont	24 63	2 37	27 00
Blodgett	7 17	75	7 92
Butman Road	4 43	38	4 81
Burgess	7 79	74	8 53
Boylston	28 09	2 75	30 84
Blossom	5 63	50	6 13
Brown	5 95	49	6 44
Burnside	8 68	88	9 56
Burns	2 60	24	2 84
Boisvert	1 41	13	1 54
Beaulieu	1 40	12	1 52
Bertram	4 00	37	4 37
Barker	3 03	25	3 28
Belmont Ave.	22 53	1 87	24 40
Belrose Ave.	4 22	38	4 60

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Burlington Ave.	\$ 2 63	\$ 37	\$ 3 00
Bachman	4 11	37	4 48
By	2 81	25	3 06
B	40 46	4 21	44 67
Concord	27 27	2 53	29 80
Chestnut	32 25	3 06	35 31
Church	31 45	4 75	36 20
Chelmsford	127 52	16 77	144 29
Cedar	8 74	87	9 61
Common	47 83	4 82	52 65
Cross	83 52	9 56	93 08
Crowley	10 75	1 25	12 00
Coral	18 91	1 81	20 72
Cambridge.....	15 34	1 49	16 83
Cumberland Road	5 18	50	5 68
Congress	8 38	1 00	9 38
Chambers	7 77	75	8 52
Cabot	14 58	1 57	16 15

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Chapel	\$38 89	\$4 31	\$43 20
Crosby	5 42	84	6 26
Coburn.....	47 46	4 26	51 72
Carlton	6 29	48	6 77
Centre	6 12	63	6 75
Cushing	8 77	1 12	9 89
Cady	3 24	44	3 68
Canton	10 62	1 13	11 75
Colburn	6 22	87	7 09
Clark	5 87	87	6 74
Cheever	14 92	1 25	16 17
Coolidge.....	3 02	24	3 26
Carter	9 63	87	10 50
Chester	8 79	87	9 66
C	17 53	1 88	19 41
Crescent.....	5 74	50	6 24
Cosgrove	5 19	50	5 69
Crawford	5 84	50	6 34

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Corbett	\$ 2 81	\$ 25	\$ 3 06
Columbus Ave.	14 62	1 37	15 99
Clitheroe	23 84	2 00	25 84
Campaw	5 63	50	6 13
Corner	5 08	50	5 58
Colonial Ave.	18 29	2 32	20 61
Court	1 51	12	1 63
Dutton	52 40	8 07	60 47
Davidson	2 85	38	3 23
Dummer	43 72	5 65	49 37
Dover	20 67	1 75	22 42
Dalton	5 19	50	5 69
Dodge	3 15	32	3 47
D	18 54	2 03	20 57
Durant	21 72	2 00	23 72
Daly	4 96	50	5 46
Dartmouth	2 81	25	3 06
Doane	6 06	50	6 56

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Dunfey	\$ 4 32	\$ 37	\$ 4 69
East Merrimack	27 78	2 76	30 54
Elm	44 99	5 13	50 12
Ennell	14 29	1 25	15 54
Edson	7 28	75	8 03
Exeter	6 07	50	6 57
Everett	5 85	50	6 35
East Pine	7 16	63	7 79
Elliot	12 46	1 57	14 03
Eighth	12 99	1 12	14 11
Eleventh	26 84	2 25	29 09
Eighteenth	25 34	2 00	27 34
Ellsworth	2 37	25	2 62
Eaton	5 84	50	6 34
Essex	2 81	25	3 06
Eighth Ave.	7 13	62	7 75
Eustis Ave.	27 36	2 38	29 74
Epping	9 09	75	9 84

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
England.....	\$ 5 63	\$ 50	\$ 6 13
Foster	45 38	4 00	49 38
Fletcher	92 94	10 31	103 25
Fayette	16 97	1 84	18 81
First	101 97	24 88	126 85
Forrest.....	11 57	1 01	12 58
Fairmount.....	58 90	6 50	65 40
Floyd	5 88	62	6 50
Fourth	34 79	3 19	37 98
Fifth	22 23	2 00	24 23
Fulton	14 06	1 25	15 31
Franklin	12 39	1 38	13 77
Fremont	12 97	1 25	14 22
Fairview	5 85	50	6 ⁷ / ₈ 35
Favor	4 35	43	4 78
Fernald	3 03	25	3 28
Fenwick.....	11 79	1 51	13 30
French	1 31	12	1 43

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Fay	\$ 4 21	\$ 38	\$ 4 59
Farmland Road	2 59	25	2 84
Ford	8 07	69	8 76
Fort Hill Ave.	38 73	3 56	42 29
Fourth Ave.	28 25	2 26	30 51
Fifth Ave.	17 23	1 38	18 61
Fairfield.....	2 92	24	3 16
Fisher	5 64	50	6 14
Florence Ave.	15 07	1 46	16 53
Gorham	91 77	12 60	104 37
Grand	42 14	3 92	46 06
George	2 56	34	2 90
Green	3 09	50	3 59
Grace	8 43	75	9 18
Garnet	2 60	44	3 04
Grove	34 20	3 57	37 77
Gates	26 57	2 69	29 26
Gibson	24 09	2 37	26 46

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Gold	\$ 3 02	\$ 25	\$ 3 27
Glidden Ave.	4 12	43	4 55
Gershom Ave.....	23 15	2 13	25 28
Georgia Ave.....	6 38	63	7 01
Gardner Ave.	3 68	25	3 93
Howard	70 15	7 82	77 97
Hale	64 79	7 50	72 29
High.....	87 32	7 88	95 20
Humphrey	9 09	75	9 84
Highland	50 62	5 32	55 94
Hanks	24 15	2 25	26 40
Hovey	9 74	88	10 62
Hildreth	33 23	2 88	36 11
Hurd	2 62	37	2 99
Hampshire	30 09	2 74	32 83
Hanover	4 79	51	5 30
Harrison	16 11	1 44	17 55
Huntington	24 42	2 25	26 67

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Howe	\$ 7 77	\$ 68	\$ 8 45
Harvard	9 76	99	10 75
Hutchinson	2 82	32	3 14
Hudson	5 84	50	6 34
Hastings	23 68	2 49	26 17
Harding	8 54	75	9 29
Hall	10 27	88	11 15
Hawthorne	5 61	50	6 11
Horne	1 30	13	1 43
Houghton	5 66	62	6 28
Hancock Ave.....	4 43	38	4 81
Holyrood Ave.	20 35	1 75	22 10
Hoyt Ave.	8 44	75	9 19
Hutchinson Sq.	2 38	25	2 63
Highland Ave.	25 10	2 24	27 34
Hobson	3 47	49	3 96
Ina	2 37	25	2 62
Jefferson	23 84	2 80	26 64

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
John	\$ 5 42	\$ 50	\$ 5 92
Jewett	24 56	2 12	26 68
James.....	4 68	43	5 11
June	16 44	1 38	17 82
Jenness	14 50	1 25	15 75
John St. Ave.	1 31	13	1 44
Kinsman	23 42	2 13	25 55
Kirk	7 04	62	7 66
Keene	7 18	75	7 93
Kitson	3 05	38	3 43
Kimball Ave.	3 89	38	4 27
Knapp Ave.	8 44	75	9 19
Lawrence.....	88 89	10 74	99 63
Lane.....	16 83	1 64	18 47
Lagrange	7 01	93	7 94
Loring	15 68	1 38	17 06
Lawson	9 69	76	10 45
Lee	14 32	1 25	15 57

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Lombard	\$ 7 59	\$ 62	\$ 8 21
Leroy	7 02	62	7 64
Linden	18 65	2 12	20 77
Lewis	23 88	2 88	26 76
Lincoln	39 93	3 63	43 56
London	25 75	2 25	28 00
Liberty	61 66	6 26	67 92
Little	8 03	1 00	9 03
Lyon	9 98	1 00	10 98
Lundberg	5 63	50	6 13
Leverett	11 47	1 13	12 60
Lenox	6 05	50	6 55
Lamb	12 89	1 12	14 01
Livermore	4 32	37	4 69
Livingston.....	6 60	63	7 23
Laurel	11 25	1 00	12 25
Ludlam	34 05	3 12	37 17
Lilley Ave.	16 89	1 50	18 39

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Locke	\$ 66	\$ 09	\$ 75
Livingston Ave.	19 42	1 93	21 35
Lura	3 25	25	3 50
Middlesex	153 72	14 83	168 55
Manahan	5 84	50	6 34
Methuen	37 37	3 13	40 50
Mammoth Road	20 24	1 75	21 99
Merrimack.....	29 68	6 01	35 69
Moody	54 81	5 44	60 25
Moore.....	69 30	5 50	74 80
Mt. Vernon	59 84	5 50	65 34
Market	85 48	13 43	98 91
Meadow Road	1 41	13	1 54
Main.....	14 35	1 50	15 85
Marginal	12 27	1 37	13 64
Marion	2 94	37	3 31
Mt. Washington	16 72	1 51	18 23
Myrtle	28 18	2 75	30 93

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
May	\$ 8 99	\$ 75	\$ 9 74
Marshall	14 03	1 14	15 17
Mansur	38 20	3 25	41 45
Meadowcroft	27 21	2 56	29 77
Mill.....	5 67	62	6 29
Mt. Grove	24 76	2 25	27 01
Madison	6 58	63	7 21
Mead	4 46	44	4 90
Maple	3 89	38	4 27
Marlborough	11 70	1 00	12 70
Manchester	2 82	25	3 07
Midland	7 47	62	8 09
Mt. Hope.....	16 88	1 50	18 38
Marsh.....	1 74	19	1 93
McKinley Ave.	2 81	25	3 06
Morton.....	4 54	38	4 94
Nesmith.....	69 97	5 99	75 96
North	13 93	1 44	15 37

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Newhall	\$14 79	\$1 50	\$ 16 29
Nichols	10 06	1 01	11 07
Nicollet	4 13	44	4 57
Nineteenth	23 81	2 00	25 81
Newell	4 44	37	4 81
Ninth	4 44	37	4 81
Norcross	12 88	1 12	14 00
New	2 83	31	3 14
Oak	16 39	1 51	17 90
Osgood	12 76	1 12	13 88
Otis	4 43	44	4 87
Olive	2 37	25	2 62
Oliver	8 65	75	9 40
Oakland	8 21	75	8 96
O'Connell	1 41	12	1 53
Ottawa	4 10	38	4 48
Orchard	1 40	12	1 52
Parker	33 50	3 01	36 51

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Pine	\$ 58 32	\$5 87	\$ 64 19
Pawtucket.....	108 12	9 49	117 61
Puffer.....	8 01	1 01	9 02
Porter	22 08	1 88	23 96
Perry	39 17	3 50	42 67
Pearl	16 67	1 85	18 52
Payton.....	4 46	50	4 96
Phillips	3 16	30	3 46
Park	9 02	86	9 88
Powell	66 61	6 24	72 85
Prescott	5 87	50	6 37
Pollard.....	4 38	50	4 88
Princeton	43 25	4 94	48 19
Perkins	10 29	87	11 16
Pond	2 69	24	2 93
Pihl	1 40	13	1 53
Plain	24 49	2 74	27 23
Plymouth	2 15	25	2 40

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Park View Ave.	\$26 35	\$2 50	\$28 88
Plummer Ave.	1 40	12	1 52
Queen	23 08	1 86	24 94
Rogers	91 17	6 50	77 67
Railroad	9 79	1 07	10 86
Rock	33 30	4 74	38 04
Riverside	50 67	5 43	56 10
Ruth	1 62	13	1 75
Richardson	5 94	62	6 56
Robert	4 33	37	4 70
Race.....	7 83	75	8 58
Read	36 73	3 50	40 23
Rolfe	12 35	1 00	13 35
Royal	19 01	1 81	20 82
Richmond	4 26	44	4 70
Robbins	17 66	1 83	19 49
Ralph.....	6 40	57	6 97
Rea	2 82	25	3 07

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Robinson	\$ 6 15	\$ 62	\$ 6 77
Roper	10 62	87	11 49
Rhodora	10 39	87	11 26
Suffolk	12 87	1 37	14 24
Stevens	89 46	8 39	97 85
Stanley	12 87	1 13	14 00
School	132 80	14 28	147 08
Smith	65 27	6 67	71 94
State	5 86	63	6 49
Sidney	5 88	62	6 50
South Highland	10 67	1 24	11 91
South Loring	17 01	1 62	18 63
South Walker	22 91	2 26	25 17
South Canton	4 45	38	4 83
South Whipple	18 06	1 62	19 68
Shaw	41 67	4 49	46 16
Shaffer	4 22	37	4 59
Summer	57 18	5 65	62 83

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Sherman	\$26 66	\$ 2 45	\$ 29 11
Starbird	8 88	75	9 63
Second	21 88	1 88	23 76
Sixth	33 96	3 18	37 14
Seventh	14 75	1 39	16 14
Spalding	4 66	44	5 10
Simpson	7 46	62	8 08
Sargent	5 85	50	6 35
Stackpole	22 02	2 13	24 15
Swift	7 45	69	8 14
Sayles	5 63	49	6 12
St. James	2 93	31	3 24
Sheldon	9 86	99	10 85
Somerset	5 52	48	6 00
Sutherland	4 22	38	4 60
South	100 44	12 96	113 40
Sanborn	1 40	12	1 52
Saratoga	2 59	25	2 84

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Spaulding	\$ 3 28	\$ 37	\$ 3 65
Seventh Ave.	14 52	1 25	15 77
Sanders Ave.	11 02	1 00	12 02
Second Ave.	20 17	1 50	21 67
Smith Ave.	3 02	25	3 27
Sixth Ave.	7 13	63	7 76
Sarah Ave.	10 53	1 19	11 72
Thorndike	143 74	31 50	175 24
Tenth	31 37	2 75	34 12
Tilden	11 61	1 51	13 12
Tyler	26 41	2 94	29 35
Third	54 15	4 88	59 03
Tucker	10 27	88	11 15
Twelfth	23 38	2 00	25 38
Tremont	6 10	68	6 78
Thirteenth.....	30 52	2 50	33 02
Talbot	11 80	1 00	12 80
Tanner	33 63	3 38	37 01

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Tyler Park	\$ 40 55	\$ 3 76	\$ 44 31
Third Ave.	13 85	1 13	14 98
Tolman Ave.....	8 45	75	9 20
Upham.....	1 41	12	1 53
Union.....	14 51	1 76	16 27
Varnum	11 26	1 13	12 39
Varney.....	16 87	1 37	18 24
Victoria	4 21	38	4 59
Varnum Ave.	217 12	21 75	238 87
White.....	22 19	1 87	24 06
Worthen	37 22	4 46	41 68
Warren	1 31	19	1 50
Walker.....	41 08	4 31	45 39
Whipple.....	16 30	1 63	17 93
Wannalancit	13 85	1 12	14 97
West Third	23 58	2 12	25 70
West Fourth	19 89	1 76	21 65
West Fifth	11 68	1 13	12 81

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
West Sixth	\$62 73	\$5 49	\$68 22
West Ninth	3 03	25	3 28
West Eleventh	3 04	25	3 29
West Adams	4 14	50	4 64
West Bowers	3 53	37	3 90
West Forrest	4 22	37	4 59
Wilder	89 56	8 99	98 55
Watson	7 48	76	8 24
Warwick	21 01	2 11	23 12
Willard	3 04	25	3 29
Ware	9 79	87	10 66
West	18 06	1 62	19 68
Willie	37 20	3 94	41 14
Wachusett.....	8 88	75	9 63
Willow	27 26	2 64	29 90
Wyman	37 38	3 25	40 63
Wamesit	5 85	50	6 35
Winter	16 75	2 25	19 00

CLEANING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Walnut	\$ 16 41	\$ 1 80	\$ 18 21
Windsor.....	23 19	1 00	24 19
Ward	14 83	1 24	16 07
Washington	15 69	1 49	17 18
Waite	1 07	12	1 19
Westford	53 97	5 12	59 09
Wentworth Ave.	61 21	5 50	66 71
Waterford	4 55	37	4 92
Woodbury	2 82	25	3 07
Waverly Ave.	10 29	87	11 16
Western Ave.	14 10	2 25	16 35
Whitney Ave.	28 38	2 25	30 63
Willie Ave.	8 88	75	9 63
Woodward Ave.	10 28	62	10 90
Winthrop Ave.	2 92	32	3 24
West Jackson	11 55	1 81	13 36
Wedge	9 09	75	9 84
Warnock	5 63	50	6 13
	\$8,390 39	\$874 48	\$9,264 87

SWEEPING STREETS.

STREETS.	LABOR.	TEAMING.	TOTAL.
Adams	\$118 32	\$24 36	\$142 68
Andover	54 27	10 78	65 05
Anne	20 94	4 30	25 24
Appleton	189 66	39 79	229 45
Arch	21 62	4 50	26 12
Branch	107 92	21 27	129 19
Bridge	139 44	28 88	168 32
Cabot	51 92	10 42	62 34
Central	7 68	2 25	9 93
Chelmsford	398 87	81 59	480 46
Church	95 29	16 09	114 38
Concord	31 12	6 29	37 41
Crosby	78 01	16 33	94 34
Davidson	53 85	10 86	64 71
Dutton	188 99	37 87	226 86
East Merrimack	81 51	17 16	98 67
Fletcher	124 31	25 99	150 30
Fayette	62 68	12 58	75 26

SWEEPING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
First	\$ 49 43	\$ 9 53	\$ 58 96
Garnet	19 42	4 04	23 46
George	19 56	4 63	24 19
Gorham	448 39	95 54	543 93
Green	24 42	4 86	29 28
Hale	74 73	15 62	90 35
Howard	56 83	12 41	69 24
Hurd	25 00	4 91	29 91
Jackson	73 84	14 66	88 50
Lakeview Ave.	286 47	69 59	356 06
Lawrence.....	274 57	56 84	331 41
Mammoth Road	70 26	15 26	85 52
Market	337 13	58 01	395 14
Merrimack.....	27 70	7 34	35 04
Moody	2 32	37	2 69
Mt. Vernon	55 02	11 89	66 91
New Moody (Bridge) .	38 97	7 48	46 45
Pawtucket.....	165 78	36 62	202 40

SWEEPING STREETS—Continued.

STREETS.	LABOR.	TEAMING.	TOTAL.
Prescott	\$ 2 58	\$ 75	\$ 3 33
Rock	84 05	17 72	101 77
Salem	43 43	8 49	51 92
School	109 41	22 48	131 89
Thorndike	262 26	55 15	317 41
Walker	88 75	19 06	107 81
Warren	16 17	3 42	19 59
Western Ave.	138 86	30 02	168 88
West Jackson	36 17	7 59	43 76
William	27 01	5 23	32 24
Worthen	121 19	25 60	146 79
	\$4,806 12	\$999 42	\$5,805 54

CONCRETE SIDEWALKS TOP-DRESSED IN 1909.

STREETS.	LOCATION.	SQ. YDS.	COST.
A	South side, between Puffer and Wilder Sts.	58.82	\$17 67
B	South side, at No. 138 .	128.0	38 40
Branch.....	South side, at No. 136 ..	12.9	3 87
Bridge	West side, between Cen- tral Bridge and Canal Bridge	38.0	11 40
Bridge	East side, at south side Second St. (Hard)....	24.9	16 94
Burttt	West side, from Pine St., northerly	103.0	30 90
Burttt	East side, from No. 46, southerly	70.1	21 03
Chelmsford	West side, near West- ford St.	18.27	5 48
Coral	East side, between Branch and Grove Sts.	102.4	30 72
Coral	East side, between Branch and Grove Sts. (Hard)	29.1	20 37
Coral	West side, between Branch and Grove Sts.	8.3	2 49
Durant.....	West side, between Nos. 19 and 77	304.1	91 23

CONCRETE SIDEWALKS TOP-DRESSED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Dutton.....	West side, between Fletcher and Kitson Sts. (Hard).....	114.9	\$80 43
Fairview	South side, from Fairmount St., easterly ..	46.2	13 86
Fletcher	West side, opposite Dane St.	31.53	9 46
Fletcher	West side, opposite Dane St. (Hard)	8.91	6 33
Fletcher	East side, between Dutton and Worthen Sts. (Hard)	44.2	30 94
Foster	West side, at Nos. 225-237.....	59.9	17 97
Gates	West side, at No. 83....	55.8	16 74
Gibson	Both sides, between Nos. 219 and 225, 222 and 234.....	177.9	53 37
Hale	South side, opposite No. 269 (Hard).....	13 76	9 63
King.....	West side, from Middlesex St., northerly (Hard)	8.0	8 00
Lakeview Ave.	North side, from Bridge St., westerly	147.7	44 31

CONCRETE SIDEWALKS TOP-DRESSED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Liberty	South side, in front Calvary Baptist Church..	63.0	\$ 18 90
Liberty	North side, between Lane and Smith Sts.....	132.1	39 63
Liberty	North side, between Lane and Smith Sts. (Hard)	15.6	7 80
Loring	East side, at Nos. 54-58	57.9	17 37
Loring	West side, at No. 107 ..	37.9	11 37
Merrimack.....	South side, at No. 776 ..	14.4	9 82
Middle	South side, between No. 20 and No. 28	46.8	14 04
Middle	North side, at No. 149 (Hard)	8.5	5 60
Middle	South side, at No. 108 (Hard)	8.3	5 49
Middlesex	South side, from No. 404 to Thorndike St. (Hard)	68.0	47 60
Middlesex	South side between No. No. 320 and No. 406 (Hard)	197.8	138 46
Middlesex	South side at No. 320 (Hard)	30.0	21 00

CONCRETE SIDEWALKS TOP-DRESSED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Middlesex	North side, between King and Thorndike Sts. (Hard)	155.6	\$108 92
Middlesex	North side, between No. 351 and King St. (Hard)	34.2	23 94
Middlesex	South side, at No. 504 (Hard)	10.05	7 03
Middlesex	South side, from Arch St., westerly	82.67	24 80
Moore.....	North side, between Gor- ham and Bleachery Sts.	49.5	14 85
Mt. Vernon ...	West side, between Paw- tucket and Lombard Sts.	462.6	127 98
Mt. Vernon ...	West side, between Paw- tucket and Lombard Sts. (Hard).....	20.1	10 05
Osgood.....	West side, between No. 17 and No. 19	35.44	10 63
Osgood.....	West side, at No. 11 ...	4.9	1 47
Osgood.....	West side, at No. 13 (Hard)	6.4	4 48

CONCRETE SIDEWALKS TOP-DRESSED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Osgood.....	East side, from No. 6 to Westford St.	103.1	\$30 93
Palmer	West side, between Mar- ket and Middle Sts. (Hard)	50.6	34 11
Park View Ave.	East side, at No. 80	39.6	11 88
Pine	North side, between No. 43 and No. 51	35.7	10 71
Pine	South side, at No. 186 ..	22.2	6 66
Pine	South side, at No. 160 ..	30.1	9 03
Rock	North side, from Willie St., easterly	66 18	19 85
Rock	North side, from No. 33 to No. 57	161.64	48 49
Rock	North side at Hanson's stable (Hard)	52.64	36 64
Rogers	South side, on Rogers St. Bridge	18.2	5 46
School	West side, from Middle- sex St., southerly	108.15	32 44
School	West side, from Middle- sex St., southerly (Hard)	12.39	8 67

CONCRETE SIDEWALKS TOP-DRESSED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Second	South side, between Bridge St. and No. 23	17.9	\$ 5 37
Stevens	East side, at south side Pine St.....	12.1	3 60
Summer	North side, at No. 277 .	21.6	6 48
Summer	North side, in front Eliot Church	72.3	21 69
Summer	North side, from Favor St., easterly	165.8	49 74
Third	South side, from No. 89, easterly	61.8	18 54
Third	North side, between Ver- non and Fremont Sts. .	37.0	11 10
Thorndike	East side, from Middlesex St., northerly (Hard) .	5.9	4 13
Varney.....	South side, from Fletcher St., westerly	137.4	41 22
Warwick	West side, at No. 53 ...	37.2	11 16
Wilder	West side, between Middlesex and Prince- ton Sts.	304.0	91 20
Wilder	West side, at No. 475 (Hard)	6.4	4 36

CONCRETE SIDEWALKS TOP-DRESSED IN 1909.
(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Wilder	East side, between Middlesex and Grove Sts.	166.7	\$ 50 01
Wilder	East side, between Middlesex and Grove Sts. (Hard)	10.0	6 80
Wilder	East side, at Boston & Maine R. R.	13.3	3 99
Wilder	West side, between Middlesex and Prince- ton Sts. (Hard)	17.0	11 56
Wilder	West side, at south side Pine St.	10.6	3 18
		4,945.95	\$1,841 77

GRANOLITHIC SIDEWALKS LAID IN 1909.

STREETS.	LOCATION.	SQ. YDS.	COST.
Bridge	East side, at Keith Bldg.	64.27	\$112 47
John	West side, in front Nos. 10 to 18	66.11	119 00
Lee	South side, from John St., westerly	6.46	11 60
Merrimack Sq. .	North side, at Keith Bldg.	128.37	224 65
		265.21	*\$467 72

*The sum of \$215.17 paid by abutters.

CONCRETE CROSSINGS REPAIRED IN 1909.

STREETS.	LOCATION.	SQ. YDS.	COST.
Wilder	West side, across Princeton St.	34.6	\$34 60
Wilder	Across Wilder St., at north side Princeton St.	8.6	8 60
		43.2	\$43 20

GRANOLITHIC SIDEWALKS REPAIRED IN 1909.

STREET.	LOCATION.	SQ. YDS.	COST.
Merrimack Sq.	At junction, south side Merrimack Sq. and west line of Prescott St.	10.76	\$17 60

CONCRETE SIDEWALKS REPAIRED IN 1909.

STREETS.	LOCATION.	SQ. YDS.	COST.
Aiken	West side, between Cheever St. and Canal	18.0	\$ 8 10
B	South side at No. 138 ...	4.0	1 80
Branch.....	North side at No. 147 ..	23.9	10 75
Branch.....	South side at No. 136...	12.9	5 80
Bridge	East side, at south side Second St. (Hard)....	1.3	1 30
Bridge	West side, between Ar- mory and French Sts. (Hard)	10.7	10 70
Bridge	West side, between Cen- tral Bridge and Canal Bridge	98.7	44 41
Bridge	East side, between Cen- tral Bridge and Canal Bridge (Hard)	4.7	4 70
Burttt	East side, from No. 46, southerly	32.3	14 53
Cabot	West side, from Ford St. to Cabot St. Bridge ...	20.6	9 27
Cabot	West side, from Cheever St., northerly	86.4	38 88
Cabot	East side, from Cabot St. Bridge, northerly	124.2	55 89

CONCRETE SIDEWALKS REPAIRED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Cheever	North side, from Tucker St., easterly	13.5	\$ 6 07
Cheever	North side, from Cabot St., westerly	42.0	18 90
Chelmsford	East side, at south side Apple St.	3.8	1 71
Chelmsford	East side, at north side Apple St.	9.0	4 05
Coral	West side, between Branch and Grove Sts.	11.7	5 26
Durant.....	West side, between Nos. 19 and 77	3.9	1 76
Dutton.....	West side, between Fletcher and Kitson Sts. (Hard).....	134.6	134 60
Fletcher	East side, between Dutton and Worthen Sts. (Hard)	52.0	52 00
Ford	North side, from Cabot St., westerly	10.7	4 81
King.....	West side, from Middlesex St., northerly (Hard)	8.0	440 89
Liberty	South side, in front Calvary Baptist Church ..	10.0	4 50

CONCRETE SIDEWALKS REPAIRED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Liberty	North side, between Lane and Smith Sts.....	53.5	\$ 24 08
Merrimack.....	South side, at No. 776 (Hard)	11.4	11 40
Middle	North side, at No. 149 (Hard)	8.5	8 50
Middlesex.....	South side, from No. 404 to Thorndike St.(Hard)	25.6	25 60
Middlesex	South side, between No. 320 and No. 406 (Hard)	207.2	207 20
Middlesex	North side, between Gar- net St. and No. 317 (Hard)	173.0	173 00
Middlesex	South side, between Gar- net St. and No. 320 (Hard)	222.1	222 10
Middlesex	North side, between No. 371 and King St. (Hard)	168.4	168 40
Middlesex	North side, between King and Thorndike Sts. (Hard)	50.2	50 20
Palmer	West side, at Central Fire Station	8.0	5 49

CONCRETE SIDEWALKS REPAIRED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Pine	North side, between Nos. 43 and 51	19.4	\$ 8 63
Pine	South side, at No. 160 ..	25.8	11 61
Pine	South side, at No. 186 ..	21.5	9 67
Pine	South side, at Highland School	251.9	113 35
Pine	South side, at Highland School (Hard)	9.8	9 80
Rhodora	West side, at Wedge St.	0.8	36
Sixth	South side, at No. 41 ...	25.5	11 47
Smith	East side, at B. G. Brown's (Hard)	22.97	22 97
Smith	East side, from No. 24, southerly	12.23	5 50
Summer	North side, at No. 277 ..	29.5	13 27
Summer	North side, from Favor St., easterly	73.6	33 12
Third	North side, from Bridge St., easterly	16.3	7 33
Third	North side, between Ver- non and Fremont Sts.	73.9	33 25

CONCRETE SIDEWALKS REPAIRED IN 1909.

(Continued.)

STREETS.	LOCATION.	SQ. YDS.	COST.
Varney.....	South side, from Fletcher St., westerly	29.3	\$13 19
Wedge	North side, from Rhodora St., westerly	4.7	2 12
Westford	North side, at Corner Chelmsford St.	26.72	12 02
Wilder	West side, between Middlesex and Princeton Sts.	161.3	72 58
Wilder	West side, between Middlesex and Princeton Sts. (Hard)	3.4	3 40
Wilder	West side, at No. 475 (Hard)	6.4	6 40
Wilder	East side, between Middlesex and Grove Sts.	60.9	27 40
		2,540.72	\$1,758 80

GUTTERS PAVED.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	STOCK.	TOTAL.
A	From Powell St., westerly	315.0	\$ 30 76	\$ 11 50	\$ 15 00	\$ 57 26
Beacon	Between Durant and Third Sts.	1,300.6	112 76	110 00	680 60	903 36
Crawford	Between Gershom Ave. and White St.	696.0	40 10	33 50	38 00	111 60
Chelmsford	At Powell St.	100.8	11 87	6 00	11 00	28 87
East Pine	South side, from Nichols St., easterly	93.8	12 57	9 35	10 00	31 92
Fairmount	East side, from Summit St. to reservoir	178.0	19 88	6 55	10 00	36 43
Fremont	From angle to Tenth St.	762.4	150 32	13 30	102 20	265 82
Payette	Between Bartlett and East Merrimack Sts.	223.0	43 24	13 70	16 50	73 44
Middlesex	North side, at No. 1781	100.0	29 12	20 00	66 00	115 12
Walker	From Columbus Ave., southerly	50.0	12 13	2 10	6 00	20 23
		3,819.6	\$462 75	\$226 00	\$955 30	\$1,644 05

GUTTERS REPAVED.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	STOCK.	TOTAL.
Andover	At No. 285	85.0	\$ 4 79	\$ 6 70	\$ 1 80	\$ 13 29
B	Both sides, between Powell and Stevens Sts.	550.0	37 93	55 85	16 50	110 28
Broadway	Opposite Locks and Canals Office	150.0	18 98	5 00	5 00	28 98
Carter	Between Gorham St. and School House	110.0	9 00	2 10		11 10
Fourth Ave.	Near Moody St.	10.0	75	61		1 36
Fremont	From Sixth St. to angle	550.0	93 54	29 10	160 20	282 84
Gates	Near Sheldon St.	10.0	1 25	1 65		2 90
Grand	Between Westford and Middlesex Sts.	107.0	20 62		11 00	20 62
Howard	Between Westford and Middlesex Sts.	91.0	11 88	14 00		36 88
Lilley Ave.	Near Lakeview Ave.	10.0	75	61		1 36
Moore	Between Lenox and Andrews Sts.	40.0	5 62	1 50		7 12
Nichols	From Branch St., southerly	533.0	44 77	11 70	12 00	68 47
Powell	At Chelmsford St.	66.0	12 74			12 74
School	Junction Liberty St.	267.0	22 60	10 50	17 82	50 92
Sixth	Between Bridge and Read Sts.	18.0	2 29	5 50		7 79
South Loring ..	Between Liberty and D Sts.	570.0	40 13			40 13
Third	Between Bridge and Read Sts.	150.0	13 50			13 50
		3,417.0	\$341 14	\$144 82	\$224 32	\$710 28

SUMMARY OF STREET DEPARTMENT EXPENDITURES.

Salaries	\$ 4,000 18
Sundries, (BILLS).....	96,777 07
Labor,	
Yard	\$12,824 64
Boulevard, maintenance	1,233 39
Cleaning streets	39,842 69
Cinder sidewalks	2,845 45
Grading streets, gravel	10,014 93
Grading streets, cinders	877 06
Grading sidewalks	270 23
Ledge, operating	11,411 60
Ledge, cleaning	448 14
Macadamizing	1,803 12
New stone walls	556 71
New edgestones	5,110 81
New culverts	223 17
New granite crossings	124 86
Oiling streets	525 69
Paving, granite	2,194 21
Paving, granite, block pavement Hassam concrete foundation	8,872 22
Paving gutters	462 75

SUMMARY OF STREET DEPARTMENT EXPENDITURES.
(Continued.)

Painting bridges.....	\$ 708 84	
Repairing bridges	1,593 77	
Repairing Boulevard and Var- num Ave.	4,078 28	
Resetting edgestones	1,640 36	
Repairing sidewalks	133 85	
Repaving gutters	341 14	
Rolling streets	460 00	
Relaying sidewalks	658 76	
Repairing streets	502 75	
Sanding sidewalks	860 83	
Sundry work.....	12,428 97	
Sidewalks cut down.....	133 30	
Teaming sand to yard.....	367 02	
Top-dressing macadam	995 93	
Removing snow	9,040 42	
Repaving streets	2,126 41	
Relaying crossings	138 06	
	<hr/>	\$135,850 36
		<hr/>
		\$236,627 61

SUNDRY WORK.

DESCRIPTION.	LABOR.	TEAMING.	STOCK.	TOTAL.
Boulevard, maintenance	\$ 1,233 39			\$ 1,233 39
Cleaning Poor Farm Bank	17 43	\$ 11 00		28 43
Cleaning streets,				
Sweeping	4,806 12	992 42		5,798 54
Scraping	8,390 39	874 48		9,264 87
Sparrow gang	24,646 18	1,872 00		26,518 18
Removing snow	9,040 42	2,952 52		11,992 94
Cutting out gutters	4 32			4 32
Cutting brush	2 00			2 00
Digging trench	9 51			9 51
Foremen in yard, stormy and holidays	119 74			119 74
Filling sand boxes	2 97	1 50		4 47
Grading old ledge	17 77			17 77
Ledge, operating	11,411 60			11,411 60
Ledge, cleaning	448 14			448 14
Moving paving at ledge	205 48	80 15		285 63
Lowering driveways	44 97	20 05		65 02
New fences	154 64		\$147 86	302 50
Opening Clark Road bank	70 73	9 60		80 33
Piling paving at ledge	136 50			136 50
Patching streets	42 04	45 85		87 89

SUNDRY WORK—Continued.

DESCRIPTION.	LABOR.	TEAMING.	STOCK.	TOTAL.
Packing away sleds	\$ 58 50	\$ 24 75		\$ 83 25
Paving city yard	24 50			24 50
Picking up stones	40 50	12 17		52 67
Repairing gutters.....	8 64	15 05		23 69
Repairing steam rollers.....	19 73			19 73
Rolling streets	460 00		\$872 62	1,332 62
Repairing paving	83 25	14 65		97 90
Repairing macadamized streets.....	117 65	51 20		257 05
Repairing crusher	53 00		88 20	53 00
Repairing gutters.....	15 44	8 25		23 69
Repairing crossings.....	43 04	9 03		52 07
Removing stone posts	3 31			3 31
Repairing washouts	152 52	12 75		165 27
Setting backstones.....	13 50	5 60	43 96	63 06
Sanding bridges	16 00	24 00		40 00
Storm guards	179 79	50 75		230 54
Sanding sidewalks	860 63	572 68		1,433 31
Setting bound stones.....	80 02	19 53		99 55
Sub-grading lawn.....	15 75			15 75
Setting stone steps	5 00			5 00
Sundry teaming	120 41	32 30		152 71

SUNDRY WORK—Continued.

DESCRIPTION.	LABOR.	TEAMING.	STOCK.	TOTAL.
Teaming sand to yard	\$ 367 02	\$1,202 47		\$1,569 49
Teaming for other departments	392 00	588 00		980 00
Teaming paving to ledge	69 38	48 00		117 38
Teamsters in yard, stormy and holidays	1,007 60			1,007 60
Teaming cobbles to ledge	227 75	183 00		410 75
Teaming edgestones to yard	6 73	3 30		10 03
Teaming fence posts	2 20	3 30		5 50
Teaming crushed stone to yard	26 65	16 65		43 30
Teaming paving to yard	15 00	22 50		37 50
Teaming sand to bridges	3 13	9 00		12 13
Unloading paving	56 58			56 58
Widening sidewalks	8 57	9 90		18 47
Watering streets	60 40	89 10		149 50
Work done for other departments	173 72	79 75		253 47
	\$75,592 25	\$9,967 25	\$1,152 64	\$86,712 14

REPAIRING BRIDGES.

STREETS.	LABOR.	TEAMING.	STOCK.	TOTAL.
Aiken.....	\$ 37 22	\$	\$ 23 00	\$ 60 22
Cabot.....	833 43	147 41	1,833 02	2,813 86
Central Bridge	30 10		56 25	86 35
Cambridge	8 00		4 00	12 00
Dutton	400 50		801 40	1,201 90
Howard	1 50			1 50
Jefferson	28 50		96 00	124 50
Lincoln	8 75		7 00	15 75
Lundberg	6 25		5 00	11 25
Lawrence	5 00		4 75	9 75
Merrimack (at Suffolk)	21 55		50 00	71 55
Market (at Suffolk) ...	148 49		345 00	493 49
Moody	42 90		85 21	128 11
Newhall.....	1 00		50	1 50
Pawtucket	13 33		32 75	46 08
Plain	3 50		4 25	7 75
Townsend Ave.	3 00		3 50	6 50
Worthen	75		25	1 00
	\$1,593 77	\$147 41	\$3,351 88	\$5,093 06

PAINTING BRIDGES.

STREETS.	LABOR.	STOCK.	TOTAL.
Aiken.....	\$ 67 92	\$ 33 24	\$ 101 16
Moody	640 92	356 72	997 64
	\$708 84	\$389 96	\$1,098 80

CLEANING CATCH BASINS.

STREETS.	LOADS REMOVED.	COST.
A	12	\$10 37
Abbott	7	6 99
Adams	18	22 30
Agawam	38	39 00
Aiken	47	44 53
Aiken Ave.	47	43 76
Albion	11	12 12
Andover	44	43 91
Andrews	39	38 92
Appleton	30	31 53
Arch	9	9 18
Arlington.....	7	7 44
Ash.....	3	3 06
Astor	2	2 18
Auburn	2	1 76
B	15	15 72
Barclay	14	13 57
Bartlett	6	6 12

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Barrington	2	\$ 1 75
Bassett	2	1 75
Batchelder Court	7	9 64
Beacon	21	19 89
Beech	16	17 89
Bellevue	12	12 43
Belmont	2	1 75
Belmont Ave.	2	1 75
Billings	10	8 75
Bleachery	6	7 00
Blodgett	4	3 94
Blossom	17	16 61
Border	2	1 75
Bowers	9	10 06
Boynton	3	2 84
Branch	24	23 99
Brewer's Ct.	2	1 76
Bridge	79	78 96

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Broadway	83	\$88 23
Brookside	2	1 75
Burns	5	5 25
Burton	1	87
Burttt	7	6 12
Butler Ave.	15	14 90
Butterfield	6	5 92
By	2	2 19
C	2	1 76
Cabot	19	16 73
Cady	7	7 00
Cambridge.....	8	7 88
Canton	8	8 30
Carlisle.....	2	1 75
Carlton	7	8 43
Carter	21	18 39
Cedar	13	12 25
Central.....	96	97 52

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Chambers	9	\$ 7 91
Chapel	33	35 00
Charles	30	32 35
Chase	5	4 39
Cheever	8	8 75
Chelmsford	74	73 71
Chestnut	15	14 87
Chester	4	3 51
Christian	3	3 49
Church	21	23 61
City Ave.....	1	1 31
City Hall Ave.	6	6 25
Claire	14	17 13
Clark	7	7 52
Clifford	2	1 76
Clitheroe	4	3 92
City Ledge, (Fletcher)	1	87
Coburn	21	19 44

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Colonial Ave.	6	\$ 5 25
Common	22	20 56
Concord	35	37 17
Congress	6	6 13
Coral	3	3 49
Cornell	1	1 31
Cornock	2	1 75
Cosgrove	10	8 32
Crawford	2	2 19
Crosby	25	22 38
Cross	28	30 19
Crowley	3	2 62
Cumberland Road	7	7 22
Cushing	13	14 87
D	10	10 08
Dalton	6	7 06
Daly	4	3 52
Dane	3	3 49

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Dane Ave.	2	\$ 2 63
Dartmouth	4	4 35
Davenport.....	6	6 10
Davidson	13	12 26
Decatur Ave.	5	5 71
Dodge	$\frac{1}{2}$	65
Dover.....	8	7 43
Dummer	6	5 25
Durant.....	5	5 26
Dutton.....	9	17 50
East Merrimack	38	39 15
East Pine	14	14 50
Eaton.....	3	3 06
Edson	2	1 75
Eighth	2	2 19
Eighteenth	8	8 53
Eleventh	8	8 30
Ellensburg	2	2 18

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS. REMOVED.	COST.
Elliot	8	\$ 7 87
Elm	7	6 13
Ellsworth	4	3 50
England.....	2	1 75
Ennell	31	27 94
Eustis Ave.	3	2 62
Everett	5	5 68
Exeter	10	9 40
Fairmount.....	16	16 62
Farnham	2	2 62
Fayette	20	21 47
Fenwick.....	3	3 06
Fifth	4	4 38
Fifth Ave.	10	9 19
Fisher	20	19 22
First	12	11 52
Fletcher	37	40 12
Floyd	9	9 62

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Ford	16	\$ 16 85
Fort Hill Ave.	8	9 19
Foster	6	5 18
Fourth	8	8 32
Fourth Ave.	24	22 82
Fremont	5	6 12
Fulton	23	24 71
Gardner Ave.	2	2 62
Garnet	5	5 26
Gates	6	6 35
Gershom Ave.....	20	18 22
Gibson	8	9 62
Gorham	107	106 56
Grace	6	5 69
Grand	29	31 06
Green	1	88
Grove	17	16 17
Hale	26	24 93

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Hall	7	\$ 8 25
Hampshire	18	19 23
Hancock Ave.....	1	2 63
Hanks	9	8 75
Harrison	3	2 63
Harvard	10	9 56
Hastings	4	4 36
High.....	39	41 99
Highland	9	9 20
Hildreth	4	3 49
Holyrood Ave.....	4	3 91
Horn	1	1 75
Hovey	4	4 16
Howard	64	68 93
Howe	2	2 19
Hoyt Ave.....	2	1 76
Hudson	9	10 95
Humphrey	14	12 68

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Huntington	3	\$ 3 06
Hurd	12	11 82
Hutchinson	9	9 63
Jackson	6	6 13
Jefferson	14	14 09
Jenness	6	6 13
Jewett	12	12 68
John	3	3 37
June	2	1 76
Keene	7	6 56
Kinsman	18	17 92
Kirk Ave.	3	2 62
Kirk	7	8 76
Kitson	2	1 76
Lagrange	9	10 06
Lakeview Ave.	67	67 42
Laurel	3	3 05
Lane	8	8 31
Lawrence	77	76 60

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Leverett	2	\$ 1 75
Lewis	4	5 24
Liberty	22	22 66
Lilley Ave.	15	14 86
Lincoln	28	27 08
Lincoln Square	6	5 23
Linden	6	6 13
Livingston.....	12	13 37
Livingston Ave.	17	18 26
Locke	3	2 62
London	22	20 56
Loring	2	2 20
Ludlam	43	43 01
Lundberg	7	5 26
Lyons.....	12	14 02
Madison	2	1 75
Maine	2	1 75
Mammoth Road	34	36 33

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Mansur	3	\$ 3 71
Maple	5	4 38
Marginal	6	5 69
Marion	3	2 19
Market	19	18 72
Marlborough	4	3 50
Marshall	18	17 76
May	2	2 19
Meadowcroft	10	9 64
Merrill	4	3 50
Merrimack	74	77 10
Methuen	23	24 95
Midland	8	8 30
Middle	10	10 81
Middlesex	187	160 91
Mill	4	3 51
Monument Square	3	3 07
Moody	100	100 27

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Moore.....	37	\$36 78
Mt. Grove	4	3 50
Mt. Hope.....	2	1 75
Mt. Vernon	35	36 73
Mt. Washington	12	12 95
Myrtle	5	6 64
Nesmith.....	32	29 77
Newhall.....	12	12 69
Nichols	16	14 92
Nineteenth	4	4 16
Ninth	6	5 26
Norcross	3	3 49
North	10	10 49
Oak	11	11 77
Oliver.....	11	11 40
Osgood.....	3	2 63
Otis	18	16 28
Paige	10	10 71

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Palmer	5	\$ 6 11
Park	6	5 24
Parker	9	8 34
Park View Ave.	10	36 85
Pawtucket.....	57	55 26
Pearl	2	1 75
Perry	41	40 21
Phillips	10	9 17
Pine	25	25 36
Pine Hill	3	2 62
Plain	15	13 13
Pleasant	27	29 05
Pollard.....	5	5 25
Pollard Ave.	2	2 19
Pond	8	7 44
Porter	3	2 63
Powell	27	25 82
Prescott	24	21 69

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Princeton	17	\$17 94
Prospect	2	1 75
Queen	14	13 57
Race	3	3 45
Railroad	3	3 07
Read	8	6 78
Riverside	20	21 88
Robbins	2	1 75
Robert	2	2 53
Rock	14	16 05
Rogers	65	61 06
Rolfe	3	3 06
Round House, (Howard St.)	3	2 62
Royal	6	4 38
Salem	6	5 23
Sanborn	4	3 95
Sanders Ave.	1	1 30
Sargent	2	2 19

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Sayles	2	\$ 1 75
School	113	120 89
Second	4	3 98
Seventh	15	15 31
Seventh Ave.	2	1 12
Shaffer	5	5 26
Shattuck	9	9 83
Seventh Ave.	3	3 06
Shaw	18	18 40
Sheldon	4	4 10
Sherman	7	6 59
Sidney	6	5 25
Sixth	19	20 53
Sixth Ave.	2	2 63
Smith	27	28 44
Somerset	5	4 82
South	33	32 81
South Highland ..	4	3 50

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
South Loring	15	\$14 03
South Walker	6	5 70
South Whipple	10	10 93
Stackpole	12	12 70
Stanley	8	8 32
Starbird	3	2 62
Stevens	30	33 13
Suffolk	30	31 41
Summer	17	17 48
Sutherland	4	4 38
Swift	7	6 56
Talbot	1	87
Tanner	7	6 13
Tenth	25	24 47
Third Ave.	4	4 00
Third	36	34 77
Thirteenth.....	7	7 44
Thorndike	89	88 59

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Tilden	5	\$ 6 55
Tremont	3	2 63
Tucker	8	6 62
Twelfth	17	18 15
Tyler	14	13 45
Tyler Park	2	2 19
Union.....	22	23 64
Varney.....	7	7 42
Varnum	9	8 94
Varnum Ave.	5	5 69
Wachusett.....	5	4 82
Walker.....	55	54 16
Walnut	19	17 49
Wamesit	29	30 59
Wannalancit	14	15 43
Ward	14	16 84
Ware	11	12 83
Warwick	14	12 25

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Watson	6	\$ 5 24
Waverly Ave.	2	88
Webster	2	1 75
Wentworth Ave.	12	11 61
Westford	107	109 24
Western Ave.	3	2 62
West Adams	10	10 06
West Eleventh	2	1 76
West Fifth	2	2 33
West Fourth	10	10 92
West Ninth	3	3 06
West Sixth	26	27 78
West Third	12	12 81
West	13	13 99
Whipple.....	22	21 87
White.....	16	17 59
Whitney Ave.	3	3 06
Wilder	43	45 30

CLEANING CATCH BASINS—Continued.

STREETS.	LOADS REMOVED.	COST.
Willard	4	\$ 4 16
Willow	2	2 19
William	44	4 36
Willie Ave.	3	3 06
Willie	7	8 31
Winter	13	15 76
Winthrop Ave.	2	2 19
Worthen	8	10 06
Wyman	7	7 00
	5,079½	\$5,119 53

REPAIRING CONNECTIONS.

STREETS.	COST.
Broadway	\$33 42
Common	14 87
Ennell	3 05
East Merrimack	3 06
French	1 74
Gorham	3 51
Lakeview Ave.	14 94
Oak	87
Robbins	3 08
Sherman	88
Thorndike	4 36
Tremont	2 25
West Sixth	90
	\$86 93

CLEANING CONNECTIONS.

STREETS.	COST.
Aiken	\$ 2 19
Andrews	87
Broadway	7 44
Bowers	7 44
Chelmsford	14 88
Coburn	1 31
Crosby	88
Concord	1 75
Cambridge	2 19
Dummer	1 75
Durant	1 32
Ennell	1 32
Fletcher	1 77
High	7 00
Hall	5 24
Hoyt Ave.	4 82
Hampshire	44
Howard	88

CLEANING CONNECTIONS—Continued.

STREETS.	COST.
Jackson	\$ 1 75
Lakeview Ave.	1 75
Lawrence	2 64
Lilley Ave.	1 75
Lundberg	4 35
Moore	6 50
Moody	3 06
Mammoth Road	1 31
Newhall	1 75
Oak	10 94
Powell	2 63
Riverside	3 06
Rock	3 94
Stackpole	4 37
West Fourth	87
	\$114 16

FLUSHING SEWERS.

STREETS.	COST.
Aiken	\$ 5 27
Broadway	3 40
Bassett	2 62
Chelmsford	7 86
Cheever	8 74
Cornell	5 68
Claire	1 27
Coolidge	7 20
Clark	7 87
Decatur Ave.	2 63
Dalton	3 50
Davidson	2 62
Endicott	1 69
Fletcher	3 49
Gershom Ave.	28 29
Grove	10 47
Gardner Ave.	6 97
Howard	4 38

FLUSHING SEWERS—Continued.

STREETS.	COST.
Hall	\$ 1 76
Hale	3 48
John Ave.	9 25
Kirk Ave.	12 24
Kirk	4 38
Lakeview Ave.	3 06
Lawrence, (Wigginville)	27 99
Manchester	4 82
Mt. Hope.	2 19
Noble's Court	3 50
Perry	3 50
Perkins	87
Palmer	2 62
Powell	8 69
Railroad	15 74
Rock	1 76
Swan Ave.	3 06
School	11 38

FLUSHING SEWERS—Continued.

STREETS.	COST.
Sanders Ave.	\$ 4 36
Third Ave.	7 34
Tucker	4 62
Tyler	88
Upham	2 19
West Fourth	13 59
White.....	12 23
Walker.....	7 87
Ward	27 84
Wannalancit	2 63
Willie Ave.	2 62
West Fifth	3 49
West Ninth	1 75
	\$325 65

CLEANING SETTLING BASINS.

NAME OF SEWERS.	COST.
Marginal	\$174 68
Oakland	127 69
Thorndike	11 50
Walker	95 79
	\$409 66

CLEANING SEWERS.

STREETS.	COST.
Bridge	\$ 2 63
Billings	1 31
Burton	88
Bartlett	6 98
Cheever	23 13
Coolidge	10 50
Chelmsford	6 56
Coburn	7 03
Davidson	3 49
Epping	87
Grove	11 83
Howard	13 43
Humphrey	7 01
John St. Ave.	20 89
Kirk St. Ave.	7 00
Lawrence	5 27
Marginal	3 94
Morton	88

CLEANING SEWERS—Continued.

STREETS.	COST.
Merrimack.....	\$ 1 75
Oaklands	36 76
Otis	7 87
Powell	8 32
Perry	60 61
Roper.....	88
School	87
Tucker	2 63
Ward	6 47
West Fourth	14 87
West Sixth	13 14
	\$287 80

REPAIRING BASINS.

STREETS.	LABOR.	STOCK.	TOTAL.
Andover	\$ 4 39		\$ 4 39
Bartlett	1 76		1 76
Broadway	2 62	\$ 8 70	11 32
Beech	7 87	2 75	10 62
Bridge	4 38		4 38
Carlisle.....	1 75	30	2 05
Charles.....	88	30	1 18
Central.....	4 38	2 53	6 91
Dummer	7 63		7 63
East Merrimack	4 40	1 12	5 52
Fremont	3 49		3 49
Hurd	3 48	15 28	18 76
Jackson	1 76	4 00	5 76
Lawrence.....	9 18	1 75	10 93
Lundberg	1 75	25	2 00
Lakeview Ave.	3 06	1 42	4 48
Middlesex	74 37	124 38	198 75
Meadowcroft	4 38	42	4 80

REPAIRING BASINS—Continued.

STREETS.	LABOR.	STOCK.	TOTAL.
Moody	\$ 4 35		\$ 4 35
Marshall.....	1 75		1 75
Moore.....	4 38	\$ 4 52	8 90
Nichols	4 38	2 83	7 21
Otis	87		87
Oak	1 75		1 75
Perry	5 26	25	5 51
Rogers	2 19		2 19
Thirteenth.....	6 11		6 11
Twelfth	2 62		2 62
Varnum Ave.	2 18	1 42	3 60
Worthen	2 19		2 19
	\$179 56	\$172 22	\$351 78

REPAIRING MANHOLES.

STREETS.	LABOR.	STOCK.	TOTAL.
Burton	\$ 3 50	\$	\$ 3 50
Beacon.....	3 48		3 48
Bridge	6 56		6 56
Crawford	2 62	82	3 44
Coburn.....	2 63	3 33	5 96
Dutton.....	2 64	62	3 26
Emery	3 51		3 51
Elm	87		87
Fourth Ave.	2 63		2 63
First	3 06		3 06
Fisher	5 25	1 50	6 75
Gorham	1 76	15 25	17 01
Gershom Ave.....	2 22		2 22
Grove	14 88	2 33	17 21
Hildreth	7 87	3 10	10 97
Hale	1 75		1 75
Kirk Ave.	12 88	23 55	36 43
Liberty	18 18	7 49	25 67

REPAIRING MANHOLES—Continued.

STREETS.	LABOR.	STOCK.	TOTAL.
Lawrence.....	\$ 20 13	\$ 3 79	\$ 23 92
Lilley Ave.	1 76		1 76
Moody	16 80	7 50	24 30
Middlesex	52 34	58 34	110 68
Mt. Vernon	2 62	1 83	4 45
Prescott	2 19	82	3 01
Pawtucket.....	1 75		1 75
Richardson	3 94		3 94
Rogers	4 36	2 61	6 97
Shattuck	4 38		4 38
Shaw	2 62		2 62
School	2 62		2 62
Tyler	7 87		7 87
Thorndike	5 24	8 70	13 94
Tanner	3 51	82	4 33
Varnum Ave.	5 31	2 83	8 14
Woodward Ave.	88		88
	\$234 61	\$145 23	\$379 84

SEWER MAINTENANCE.

SUMMARY.

DESCRIPTION.	EXPENDED.
Salaries	\$3,461 18
Yard Labor	2,469 23
Labor,	<hr/> \$ 5,930 41
Cleaning manholes	\$ 170 16
Cleaning culverts	86 69
Cleaning connections	114 16
Cleaning settling basins	409 66
Cleaning sewers	287 80
Cleaning catch basins	5,119 53
Flushing sewers	325 65
Inspecting and testing sewers	148 65
Opening basins	669 97
Repairing culverts	25 46
Repairing catch basins	179 56
Repairing connections	86 93
Repairing manholes	234 61
Sundry work	451 21
Work done for other departments ..	277 35
Other Expenses	<hr/> \$ 8,587 39
	8,424 02
	<hr/> \$22,941 82

SUMMARY OF
SEWERAGE STATISTICS
IN FORM

RECOMMENDED BY

SANITARY SECTION

OF

Boston Society Civil Engineers

YEAR ENDING, DECEMBER 31, 1909.

LOWELL, MASSACHUSETTS.

GENERAL.

Population by census of 1905	94,889.
Total area of City	14.1 square miles.
Area served by sewerage system	About 10 square miles.

Collection system {	For sewage only	1.19 miles.
	For sewage and surface water	102.36 miles.
	For surface water only	1.975 miles.

Method of Disposal—Discharged into Merrimack and Concord Rivers.

COLLECTION.

Mains, (Everything but House and Catch Basin connections).

	For Sewage For Sewage and Surface Only.	Water.	For Surface Water Only.
1. Lineal feet stone.....		6,125	
2. Lineal feet brick		169,801	
4. Lineal feet pipe	6,270	358,264	10,429
5. Lineal feet extended during year		9,963	
8. Method of flushing—By hose connection with hydrants and Water Works blow-offs.			
	For Sewage For Sewage and Surface Only.	Water.	For Surface Water Only.
11. Number of direct connections with water mains for flushing		5	
13. Cost of flushing per mile		\$76 00	for about 5.2 miles
14. Number of miles cleaned		0.75	
15. Cost of cleaning per mile		\$75 00	
16. Number of stoppages.....		6 or 8	
18. Number of storm overflows ...		10	
19. Method of ventilation		Through manholes	
20. Cost of maintaining sewer sys- tem exclusive of disposal works (including cost of flushing and cleaning sewers; cost of cleaning catch basins; administration and unclassi- fied expense)		\$22,941 82	

HOUSE CONNECTIONS.

21.	By whom made	Local contractors
22.	Sizes	4, 5, 6 inches
23.	Number made during year	255
24.	Lineal feet laid during year	8,900
27.	Average cost per ft., connections made during year	\$0 50
28.	Number of stoppages coming to attention of department	64

CATCH BASINS.

29.	Number	3,473
30.	Number cleaned	All
31.	Average amount material removed per catch basin ..	1.2 cu. yds.
32.	Cost of removing material per cubic yard	\$1 40
33.	Cost of removing material per catch basin per year....	\$1 50

DISCHARGE OF SEWAGE.

34.	Estimated population using sewage system.....	95,000
35.	Number of buildings connected	11,700

BRIDGES.

STREETS.	LOCATION.	MATERIAL.	MAINTAINED BY.
Aiken	Merrinack River	Iron	City
Aiken	Northern Canal	Iron	City
Boylston	Western Div. B. & M. R. R.	Wood	B. & M. R. R.
Bridge	Merrinack River	Iron	City
Bridge	Eastern Canal	Wood	Props. Locks & Canals
Broadway	Pawtucket Canal	Wood	Props. Locks & Canals
Broadway	Western Canal	Stone	City
Cabot	Northern Canal	Wood	City
Cambridge	River Meadow Brook	Wood	City
Central	Pawtucket Canal	Wood	Props. Locks & Canals
Chelmsford	B. & M. R. R.	Iron	B. & M. R. R.
Church	Concord River	Stone	City

BRIDGES—Continued.

STREETS.	LOCATION.	MATERIAL.	MAINTAINED BY.
Congress	River Meadow Brook	Wood	City
Dutton	Western Canal	Wood	City
East Merrimack	Eastern Canal	Wood	Props. Locks and Canals
East Merrimack	Concord River	Iron and Stone	City
Gorham	River Meadow Brook	Wood	City
Hale	B. & M. R. R.	Iron	B. & M. R. R.
Hall	Western Canal	Wood	Lawrence Mfg. Co. and Tremont & Suffolk Mills
Howard	River Meadow Brook	Stone	City
Jefferson	Western Canal	Iron	City
Lawrence	Concord River	Wood	City

BRIDGES—Continued.

STREETS.	LOCATION.	MATERIAL.	MAINTAINED BY.
Lawrence.....	Wamesit Canal	Wood	Wamesit Power Co.
Lincoln	River Meadow Brook	Wood	City
Lundberg	B. & M. R. R.	Iron	City
Market	Merrimack Canal	Wood	City
Market	Western Canal	Wood	City
Merrimack.....	Merrimack Canal	Stone and Brick	Props. Locks & Canals
Merrimack.....	Western Canal	Wood	Props. Locks & Canals
Moody	Western Canal	Wood	City
Moody	Merrimack River	Iron	City
Newhall	River Meadow Brook	Iron	City
Pawtucket.....	Western Canal	Wood	Props. Locks & Canals

BRIDGES—Continued.

STREETS.	LOCATION.	MATERIAL.	MAINTAINED BY.
Pawtucket.....	Pawtucket Canal	Wood	Props. Locks & Canals
Plain	River Meadow Brook	Wood	City
Rogers	Concord River	Stone	City
School	Merrimack River	Iron	City
School	Northern Canal	Brick and Stone	Props. Locks & Canals
School	Pawtucket Canal	Wood	Props. Locks & Canals
Suffolk	Northern Canal	Wood	Props. Locks & Canals
Thorndike	Pawtucket Canal	Wood	Props. Locks & Canals
Wilder	B. & M. R. R.	Wood and Iron	B. & M. R. R.
Worthen	Western Canal	Wood	City

PERMITS ISSUED IN 1909.

DESCRIPTION.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Sewer connections, new sewers " " repairs.....	2 9	1	5 3	32 9	33 10	43 4	40 7	31 5	19 5	20 8	20 2	11 2	256 65
Street obstruction	1		1	2	2		2	5	2	2	3	1	21
Building purposes	4	6	10	4	13	12	14	15	13	5	8	4	108
Lowell Gas Light Corp., for supply pipe " " " pipe repairs	2		8	38	30	28	23	33	31	32	53	13	291
" " " " lamp posts.....	4	7	4	4	2		1	2		6	10	2	42
" " " " main extension	1		2	1			1	7			18	1	31
Lowell Electric Light Corp., pole locations. " " " conduits	1	1 3	1 1	3 1	9 2	6 1	8 2	6 1	2 2	6 2	4 3	6 1	53 19
New England Telephone Co., pole locations " " " conduits	11			3	2 3	7	2 4	2	1	1	5 9	1 1	35 17
Water Works Department.....	8	7	15	37	55	54	55	56	36	39	54	38	454
Total	43	25	50	140	164	156	161	167	116	127	192	82	1,423

STREETS MACADIMIZED.

STREETS.	LOCATION.	LIN. FT.	SQ. YDS.	LABOR.	ROLLING	TEAMING.	STOCK.	TOTAL.
Beacon	From Durant St. to Sanborn St.	660.5	2,000.0	\$ 277 95	\$ 55 22	\$ 666 06	\$1,064 74	\$ 2,063 97
Colonial Ave.	At junction Riverside St.	28.5	256.5	65 76	32 00	88 50	163 16	349 42
Dunbar Ave.	" " junction Pawtucket Boulevard and junction Varnum Ave.	125.0	455.0	21 25	11 29	140 00	218 40	390 94
Fisher	From Lakeview Ave. to Cumberland Rd.	935.0	2,908.8	496 69	114 00	590 50	1,045 20	2,246 39
Fremont	" " Sixth St. to Tenth St.	1,102.6	3,001.7	441 43	194 59	787 73	968 00	2,391 75
Hildreth	" " Bridge St. to Ennell St.	1,942.2	5,746.3	403 60	325 21	315 50	968 00	2,012 31
Nichols	" " Branch St. to Westford St.	472.0	1,120.5	78 24	101 90	310 65	442 80	933 59
Pawtucket Boulevard	At junction Dunbar Ave.	105.2	415.0	18 20	9 10	136 50	205 20	369 00
		5,371.0	15,904.2	\$1,803 12	\$843 31	\$3,035 44	\$5,075 50	\$10,757 37

NEW WALLS.

STREETS.	LOCATION.	LIN. FT.	CU. YDS.	LABOR.	TEAMING.	TOTAL.
Crawford ..	South side, from White St., westerly.....	251.8	88.70	\$367 40	\$107 11	\$474 51
Wood	West side, from Middlesex St., southerly ..	242.4	81.80	189 31	63 00	252 31
	-	494.2	170.50	\$556 71	\$170 11	\$726 82

CULVERTS.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	STOCK.	TOTAL.
Wood	Near Princeton St.	50.0	\$ 27 62	\$ 8 50	\$	\$ 36 12
Woburn ...	Between Juniper St. and Carmine St.	200.0	195 55	30 00	41 66	267 21
		250.0	\$223 17	\$38 50	\$41 66	\$303 33

GRAVEL STREETS GRADED AND RE-SURFACED.

STREETS.	LOCATION.	DESCRIPTION.	LIN. FT.	SQ. YDS.	LABOR.	TEAMING.	TOTAL.
Boulevard.....	From Varnum Ave. to State Highway	Grading	9,495.0	36,925.0	\$ 3,109.48	\$1,116.10	\$ 4,225.58
Butman Road.....	" Rogers St., northerly	"	1,400.0	2,988.9	406.26	569.00	975.26
Chelmsford.....	Between Stevens St. and Jenness St.	Re-surfacing	1,834.0	5,382.0	101.73	82.00	183.73
Crawford.....	" Gershom Ave. and Fourth Ave.	Grading	723.0	2,249.0	85.03	339.30	1,189.83
Cornell.....	" Middlesex St. and Princeton St.	Re-surfacing	200.0	622.0	75.46	60.50	135.96
Dalton.....	From Ennell St. to Lilley Ave.	"	251.0	781.0	22.32	11.00	33.32
East Merrimack.....	Between Andover St. and Rivercliffe Road	Grading	65.0	2,311.0	520.32	685.50	1,205.82
Eugene.....	" Billerica St. and Woburn St.	Widened	100.0		207.57	79.35	286.92
First.....	" Llewellyn St. and City Line	Shaping Street			250.46	112.87	363.33
Gardner Ave.....	From Moody St. to end of street	Grading	525.0	1,400.0	126.00	92.80	218.80
Glacial Ave.....	" Westford St., southerly	Widened			471.50	65.00	536.50
Lincoln.....	" Autumn St. to N. Y., N. H. & H. R. R.	Grading	556.0	1,730.0	151.97	112.00	263.97
Lang.....	" Midland St. to Avery St.	"	490.0	1,524.0	670.23	608.50	1,278.73
Liberty.....	" School St. to Osgood St.	Re-surfacing	286.0	1,123.3	72.24	93.00	105.24
Mansur.....	" Park View Ave. to Butman Road	"	185.0	740.0	61.41	77.50	138.91
McKinley Ave.....	" Stevens St., westerly	"	220.0	684.0	48.25	50.00	98.25
Middlesex.....	Between Hadley St. and City Line	Widened	2,282.0		410.46	165.10	575.56
Perry.....	" Pond St. and Sherman St.	Grading	781.0	2,430.0	111.80	105.00	216.80
Pine.....	Opposite Highland School	Widened			665.39	135.70	801.09
Plummer Ave.....	From Andover St. to East Merrimack St.	Grading	783.0	2,436.0	181.09	205.25	386.34
Rea.....	" Rogers St., southerly	Re-surfacing	819.0	2,548.0	93.00	150.00	243.00
Stackpole.....	Between East Merrimack St. and Alder St.	Grading	1,638.0	5,096.0	222.46	268.00	490.46
South Loring.....	" Liberty and D Sts.	"	1,215.0	2,970.0	242.17	256.00	498.17
Totman.....	From Varnum Ave., northerly	"	600.0	1,333.0	120.25	120.00	240.25
Varnum Ave.....	Near residence of George Webster	"	400.0	889.0	493.23	185.00	678.23
Woburn & Eugene	Between Juniper St. and Carmine St.	Widened	357.0	689.0	329.35	216.60	545.95
			25,791.0	76,851.2	\$10,014.93	\$5,901.07	\$15,916.00

GRANITE BLOCK PAVEMENT LAID.

STREETS.	LOCATION.	LIN. FT.	SQ. YDS.	LABOR.	TEAMING.	STOCK.	TOTAL.
Moody	At junction Pawtucket St.	62.0	151.5	\$ 97 75	\$ 15 00	\$ 119 15	\$ 231 90
Pawtucket	From Wilder St. to Rolfe St.	467.5	1,532.4	698 22	514 90	1,158 19	2,371 31
Tanner	From near Howard St. to Cambridge St.	706.3	2,563.2	1,328 35	808 83	1,937 63	4,074 81
Wannalancit	At Bartlett School	41.0	90.5	69 89	20 72	97 42	188 03
		1276.8	4,337.6	\$2,194 21	\$1,359 45	\$3,312 39	\$6,866 05

RESETTING EDGESTONES.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
A	Between Wilder and Chelmsford Sts.	186.0	\$ 11 27	\$ 6 30	\$ 17 57
Ames	At School House	4.0	63	1 40	2 03
Adams	Between Lagrange and Suffolk Sts.	410.3	90 72	23 60	114 32
B	North side, at No. 149	33.0	1 63	1 50	3 13
Bridge	Opposite No. 855	50.0	9 18		9 18
Bridge	Between Central Bridge and Merrimack Square	1,060.8	150 69		150 69
Branch	Junction Middlesex St.	132.0	21 39		21 39
Burt	Between Westford and Pine Sts.	235.0	35 63		35 63
Cabot	At No. 147	15.0	1 50		1 50
Cabot	Between Ford and Hall Sts.	310.0	43 78		43 78
Cheever	North side at Cabot St.	62.0	9 00		9 00
Coral	Between Middlesex and Grove Sts.	160.0	28 89		28 89
Chelmsford	At No. 482	13.0	1 35	1 88	3 23
Central	Between Union and Elm Sts.	529.3	56 06	4 60	60 66
Dutton	Between Kitson and Fletcher Sts.	250.0	53 00	5 00	58 00
Dutton	Between Kitson St. and Broadway	751.1	79 03	1 68	80 71
First	At Read St.	11.0	5 31	70	6 01
Fletcher	Between Dutton St. and Worthen St.	104.7	20 25		20 25
Ford	At Cabot St.	11.8	1 75		1 75
Fairmount	Between Summit St. and Locks and Canals Reservoir				
Fisher	Near Lakeview Ave.	166.6	20 00	5 20	25 20
Gorham	Corner Maple St.	50.0	8 50		8 50
Hildreth	Between Bridge and Coburn Sts.	40.0	5 25	1 40	6 65
Lawrence	From R. R. Bridge, easterly	165.0	16 88		16 88
Moore	Between Lenox and Andrews Sts.	67.0	6 00		6 00
Merrimack	Between Eastern Canal and Dutton St.	115.0	18 63	1 50	20 13
Middlesex	Between Garnet St. and B. & M. R. R. tracks	1,471.2	247 84		247 84
North	South side, from Central St. easterly	1,571.3	220 12		220 12
		89.5	18 06	5 50	23 56

SUPERINTENDENT OF STREETS.

161

RESETTING EDGESTONES—Continued.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Nichols	Between Branch St. and East Pine St.	99.5	\$ 13 21		\$ 13 21
Pine	South side, in front Highland School, at No. 60 and from Stevens St., easterly	468.7	56 75		56 75
Roberts	Between Fifth and Sixth Aves.	152.0	10 63		10 63
Smith Ave.	Between Middlesex and Branch Sts.	40.0	2 81	\$ 3 85	6 66
So. Loring	Between Shaw and D Sts.	36.0	4 00		4 00
Suffolk	Corner Dodge St.	15.0	4 25		4 25
Summer	Between South and Thorndike Sts.	618.0	62 64	7 70	70 34
Sixth	Between Bridge and Read Sts.	168.0	27 46		27 46
School	Near Middlesex St.	45.0	3 69	3 85	7 54
Tyler	At No. 43.	4.0	81		81
Tanner	At Cambridge St.	32.0	4 50		4 50
Tanner	From near Howard St. to Cambridge St.	612.0	101 25	26 78	128 03
Third	At No. 182.	155.0	13 00	6 65	19 65
Varney	Between Fletcher and Mt. Washington Sts.	65.0	9 56	5 50	15 06
Willie Ave.	Near Clark St.	25.6	2 91	70	3 61
Wilder	From Middlesex St., southerly	535.0	140 55		140 55
		11,135.4	\$1,640 36	\$115 29	\$1,755 65

STREETS REPAVED.

STREETS.	LOCATION.	SQ. YDS.	LABOR.	TEAMING.	STOCK.	TOTAL.
Anne	Junction Merrimack St.	84.3	\$ 30 31	\$	\$	\$ 30 31
Broadway	At City Stables	40.0	10 32			10 32
Chelmsford	Near City Line	29.0	13 75	2 80		16 55
Cabot	Between Ford St. and Northern Canal	254.2	114 39	57 60		171 99
Dutton	Merrimack and Market Sts.	118.0	138 48	65 50		203 98
Dutton	Kitson St. and Broadway	85.0	47 81	11 00		58 81
Dutton	At Canal Bridge	260.0	91 40	6 60		98 00
Fletcher	Between Broadway and Brooks St.	116.0	63 86	5 95		69 81
Gorham	" Carter and Moore Sts.	95.0	38 18	3 60		41 78
Howard	From Tanner St. to No. 24	127.0	50 81	11 00		61 81
Lawrence	" No. 575 to Watson St.	224.0	101 14	49 00		150 14
Lawrence	Between Abbott & Hudson Sts.	61.0	36 56	13 20		49 76
Lakeview Ave.	" Ennell St. and Cumberland Road	46.0	18 57	3 85		22 42
Market	At Suffolk St. Canal Bridge	58.0	23 06			23 06
Moody	Between Pawtucket St. and Moody St. Bridge	88.8	25 87			29 72
Merrimack	In Merrimack Square	413.0	239 27	152 25	34 00	425 52
Merrimack	At Dutton St.	150.0	91 94			91 94
Mammoth Rd.	Between Riverside St. and Pawtucketville Bridge	86.9	67 56	16 00		83 56
Prescott	At junction Merrimack Square	223.0	150 75	44 00		194 75
Palmer	At junction Merrimack St.	282.1	90 00	11 00		101 00
Shattuck	At junction Merrimack St.	96.1	39 87			39 87
Tanner	At Cambridge St.	27.0	10 72	4 00		14 72
Varnum Ave.	In car track from Mammoth Road to Pawtucket Boulevard (cobble replaced by granite blocks)	774.3	631 79	311 00	585 14	1,527 93
		3,738.7	\$2,126 41	\$772 20	\$619 14	\$3,517 75

REPAIRING BOULEVARD AND VARNUM AVENUE.

	LABOR.	TEAMING.	STOCK.	TOTAL.
BOULEVARD,				
Grading	\$3,109 48	\$1,116 10		
Oiling	213 46	98 09	\$923 57	
Macadamizing	27 30	136 50	205 20	
	—\$3,350 24	—\$1,350 69	—\$1,128 77	\$5,829 70
VARNUM AVENUE,				
Grading	\$ 493 23	\$ 185 00		
Oiling	189 17	86 83	\$679 95	
	—682 40	—271 83	—679 95	1,634 18
DUNBAR AVENUE,				
Macadamizing	\$ 32 54	\$ 140 00	\$218 40	
Oiling	13 10	6 04	47 11	
	—45 64	—146 04	—265 51	457 19
	\$4,078 28	\$1,768 56	\$2,074 23	\$7,921 07

SIDEWALKS RELAID.

STREETS.	LOCATION.	SQ. YDS.	LABOR.	TEAMING.	STOCK.	TOTAL.
Adams.	East side, from Lagrange St. to Suffolk St. ...	343.1	\$ 99 16	\$ 39 15	\$ 28 40	\$ 166 71
Bartlett.	Opposite St. John's Hospital	4.0	75	61		1 36
Bridge	East side, from Canal St. to near Merrimack Square.....	322.4	98 62	16 50		115 12
Cabot	At No. 147	12.0	4 50	70	2 04	7 24
Central	Between Union St. and Elm St.	661.5	171 20	52 75	134 48	358 43
Dutton	West side, from Kitson St. to Broadway	704.7	175 45	41 55		217 00
High	Cor. Chestnut St	1.0	75	61		1 36
Merrimack ...	Between Dutton St. and Central St.	135.4	90 07	3 61		93 68
Market	South side, at Waverly Hotel	52.0	18 26	5 50	37 40	61 16
		2,236.1	\$658 76	\$160 98	\$202 32	\$1,022 06

OILING STREETS.

STREETS.	LOCATION.	LIN. FT.	SQ. YDS.	LABOR.	TEAMING.	STOCK.	TOTAL.
Boulevard	From Varnum Ave. to State Highway ...	9,540	28,550	\$213 46	\$ 98 09	\$ 923 57	\$1,235 12
Cross	" Suffolk St. to Willie St.	1,080	2,640	18 00	10 00	39 40	87 40
Colonial Ave.	" Moody St. to Riverside St.	1,185	4,608	28 84	13 24	103 68	145 76
Dunbar Ave.	" Varnum Ave. to Boulevard	1,346	2,094	13 10	6 04	47 11	66 25
Dummer	" Market St. to Broadway	525	1,750	14 50	4 00	39 37	57 87
Moody	" Spalding St. to Colonial Ave.	735	1,633	10 49	4 72	36 72	51 93
Princeton	" Wilder St. to Livingston Ave.	1,603	5,343	20 75	15 00	120 19	155 94
Riverside	" Colonial Ave. to Mammoth Road ...	1,800	1,778	11 13	5 08	39 81	56 02
Varnum Ave.	" Mammoth Road to Town Line	16,162	30,528	189 17	86 83	679 95	955 95
Willie	" Fletcher St. to Cross St.	250	722	6 25	3 50	16 25	26 00
		33,226	79,676	\$525 69	\$246 50	\$2,066 05	\$2,838 24

NEW EDGESTONES LAID.

STREETS.	LOCATION.	LIN. FT.	COST OF EDGESTONE.	LABOR.	TEAMING.	TOTAL.
Bridge	Edgestone laid for new sidewalks.	11,742.3	\$4,212 35	\$1,792 06	\$819 72	\$6,824 13
*Clark	Between Central Bridge and Merrimack Sq.	547.8	202 00	79 95	17 87	315 54
Dutton	At engine house.			51 19	8 40	59 59
†High	Corner Fletcher St.	11.1	7 68	6 38	2 45	16 51
†Lang	East side front Fort Hill Park	183.0	79 94	48 64	2 50	131 08
Livermore	West side front Washington School	369.8		71 20		71 20
Merrimack	At No. 14	14.0	4 83	2 44	3 08	10 35
Middlesex	Between Dutton St. and eastern canal	457.6	195 06	89 14	22 90	307 10
Moody	Between Garnet St. and B. & M. R. R. tracks	607.4	226 94	127 52	26 79	381 25
Sheldon	South side, opposite Textile School	40.5	13 77	12 75	2 30	29 02
Tyler	Corner Gates St.	17.0	11 56	6 00	2 63	20 19
Varney	At No. 16	15.0	5 17	2 94	3 05	11 16
Wannalancit	At No. 10	10.0	3 45	3 95	2 45	9 83
Westford	At New Bartlett School	324.7	120 59	59 63	30 19	210 41
	Junction Chelmsford St.	40.4	27 47	46 68	10 65	84 80
		14,410.6	\$5,110 81	\$2,416 17	\$955 18	\$8,482 16

*1113' 6" old edgestone.

†355' 5" old edgestone.

†Edgestone furnished by L. & B. Department.

SURFACING STREETS WITH CINDERS.

STREETS.	LOCATION.	LIN. FT.	LABOR.	TEAMING.	TOTAL.
Barrington	Between Agawam St. and South Whipple St. .	150.0	\$ 21 01	\$ 65 00	\$ 86 01
BillERICA	" Lawrence St. and Stavely St.	745.0	64 56	107 35	171 91
Davis	" Appleton St. and Winter St.	240.0	15 94	7 70	23 64
Epping	" Lawrence St. and Morton St.	100.0	17 44	36 00	53 44
East Merrimack ..	From Plummer Avenue, westerly	400.0	58 39	155 00	213 39
First	Between Llewellyn St. and City Line	1,150.0	208 56	412 54	621 10
Gardner Ave.	From Crawford St., westerly	225.0	15 12	75 00	90 12
Leverett	" Washington St. to Hale St.	250.0	18 54	37 25	55 79
Reservoir	" Beacon St., northeasterly	295.0	34 39	48 00	82 39
Stackpole	Between Alder St. and East Merrimack St. .	513.0	78 68	145 00	223 68
Tenth	From Christian St. to Mt. Pleasant St.	538.7	143 43	309 25	452 68
Sixth Avenue	" Moody St., northerly	240.0	32 12	73 25	105 37
Vernon	" Third St., easterly	110.0	11 37	11 00	22 37
Wentworth Ave. .	" Laurel St. to Rogers St.	550.0	157 51	427 50	585 01
		5,506.7	\$877 06	\$1,909 84	\$2,786 90

MACADAMIZED STREETS TOP-DRESSED.

STREETS.	LOCATION.	LIN. FT.	SQ. YDS.	LABOR.	ROLLING.	TEAMING.	STOCK.	TOTAL.
Beacon	From Third St. to Sanborn St.	252.0	763.0	\$172.48	\$ 15.26	\$ 114.45	\$ 152.60	\$ 454.79
Durant	At junction Beacon St.	56.0	93.3	8 87	1 86	13 99	18 66	43 38
Fairmount ..	From Summit St. to Locks & Canals Reservoir	178.5	345.1	38 44	29 64	31 50	44 00	143 58
Moody	Between Colonial Avenue and Moody St. Bridge and at junction Pawtucket St.	282.1	1,017.8	96 26	18 51	162 00	205 20	481 97
Rogers	From City Line to Nesmith St.	3,831.0	5,746.7	341 87	360 14	670 00	879 60	2,251 61
School	" Westford St. to Liberty St.	758.0	2,227.3	105 44	135 60	240 10	444 40	925 54
Varnum Ave.	" Mammoth Road to Brookside St.	2,004.4	5,727.1	232 57	78 43	766 35	1,322 40	2,399 75
		7,362.0	15,920.3	\$995 93	\$639 44	\$1,998 39	\$3,066 86	\$6,700 62

GRANITE BLOCK PAVEMENT ON HASSAM CONCRETE FOUNDATION—BRIDGE STREET.

STREET.	LOCATION.	LIN. FT.	SQ. YDS.	Found- ation.	Sub-grade.	Paving.	Grouting.	Regulating.	Total.
Bridge ..	Between Merrimack Square and Central Bridge	778.8	3,604.57	\$ 483 53 Labor Teaming Cement Sand Crushed stone Teaming stone Royalty Use of water Use of mixer Use of roller Labor Teaming Rolling Labor Watchmen Unloading paving Teaming paving Sand 3,489.20 yds. paving, @ \$1.24 Engineering Use of tools Labor Cement Sand Crushed stone Use of water Use of mixer Resetting edgestone New edgestone Concrete sidewalks Sewer, Amory St. Sewer, French St. Catch basins Relaying sidewalks Repaving Relaying crossings	\$ 692 07 488 55 77 90 <				

GRANITE BLOCK PAVEMENT ON HASSAM CONCRETE FOUNDATION—MERRIMACK ST. AND SQUARE.

STREET.	LOCATION.	LIN. FT.	SQ. YDS.	Found- ation.	Sub-grade.	Paving.	Grouting.	Regulating.	Total.
Merrimack Sq. and Merrimack St.	Between Eastern Canal and Boston & Maine Railroad tracks at Dutton St.	1,551.8	7,923.08	Labor \$ 626 48 Teaming 305 78 Cement 1,181 23 Sand 1,284 32 Royalty 768 31 Crushed stone 2,430 00 Teaming stone 918 50 Use of water 53 49 Use of mixer 227 27 Use of steam roller 166 32 Labor \$1,361 18 Teaming 659 02 Use of steam roller 166 33					\$ 7,961 70
						Labor \$1,660 76 Teaming 290 50 Unloading paving 552 70 Watchmen 351 25 Sand 694 00 7,682.97 yds. paving, @ \$1.24 9,526 89 Engineering 363 34 Advertising 9 60 Use of tools 100 00 Labor \$ 516 84 Cement 670 45 Sand 182 60 Crushed stone 86 40 Use of water 30 36 Use of mixer 227 26			13,279 04
								\$ 107 22 294 96 17 75 174 70 307 10 141 87 509 57 263 12 60 00 187 25 27 60 9 63	1,713 91
									2,100 77
				\$7,961 70	\$2,186 53	\$13,279 04	\$1,713 91	\$2,100 77	\$27,241 95

NEW SIDEWALKS BUILT.

STREETS.	LOCATION.	Lin. Ft. Edgestone.	Lin. Ft. Circle.	Sq. Yds. Concrete.	Total Length.	Cost of Edgestone.	Cost of Concrete.	Cost of Labor.	Cost of Teaming.	Total Cost.
Apple	B. S. from Chelmsford St. to Railroad St.	\$55.0	76.2	261.1	931.2	\$346 79	\$225 52	\$161 50	\$ 70 59	\$578 88
Apple	E. S. " " land of Letitia Gifford to Railroad St.			212.2						225 52
Bourne	B. S. " " Andrews St., southerly	244 6			244 6	84 39		37 81	12 85	135 05
Carrier	S. S. " " Gorham St., easterly	310 2	18 4		328 6	119 52		46 39	23 00	188 91
Cheever	S. S. " " Aiken St. to Pawtucket St.	619 1	7 3	518 9	626 4	218 55		96 13	16 10	564 28
Crawford	B. S. " " Powell St., northerly	35 7			35 7	12 32		2 13	1 83	16 28
Dalton	B. S. " " White St. to Garsum Ave.	695 7	19 6		715 3	253 34		124 63	86 87	404 84
Dalton	B. S. " " Emmet St. to Lilley Ave.	495 3	19 3		514 6	184 00		42 13	34 93	261 06
Fisher	N. S. " " White St., westerly	125 8			125 8	43 40		22 79	7 32	73 51
Gardner Ave.	B. S. " " Lakeview Ave. to Cumberland Rd.	1 237.2	88 2		1 325.4	486 81		178 85	80 08	745 74
Georgia Ave.	B. S. " " Moody St., westerly	854 3			854 3	294 73		79 75	55 35	429 83
Lawrence	N. S. " " point 125 ft. south of Tyler Park, southerly	71 2			71 2	24 56		11 13	4 88	40 57
Lenox	W. S. " " from end of edgestones laid, easterly	126 4			126 4	43 61		28 29	10 17	82 07
Lenox	W. S. " " Moore St. to South Whipple St.	187 2			187 2	64 58		59 15	28 28	211 18
Main	W. S. " " Not assessed, Park Department	164 2	3 7		167 9	59 17				
Middlesex	N. S. " " Lincoln St., northerly	75 0	10 4		85 4	32 94		15 19	7 19	55 32
Moody	N. S. " " Edwards St., westerly	98 7	10 1		108 8	40 92		45 38	8 20	94 50
Moody	N. S. " " East line of School lot, westerly	200 0			200 0					
Osgood	E. S. " " Fifth Ave. to Sixth Ave.	300 2	9 6	97 9	309 8	179 10	44 05	135 01	40 62	354 73
Parker	E. S. " " North of Liberty St., northerly	49 5	24 3		73 8					44 05
Pine	S. S. " " Parker St., southerly	70 5			70 5	57 92		22 56	30 09	110 57
Pine	N. S. " " Wesley St., westerly	63 4	9 8		73 2	28 53		6 25	7 76	42 54
Pine	N. S. " " Wilder St., westerly	91 2	8 6		99 8	37 04		75 89	5 90	118 83
Pawtucket	E. S. " " Cheever St., westerly	59 3		45 2	59 3	20 46	20 34	8 19	1 89	50 88
Pawtucket	E. S. " " Wilder St. to Rolfe St.	921 6	23 9		945 5	334 20		98 91	56 55	489 66
Pawtucket	N. S. " " Westerly to land of John Follis	221 0			221 0	76 24		33 98	12 60	122 82

NEW SIDEWALKS BUILT—Continued.

STREETS.	LOCATION.	Lin. Ft. Edgestone.	Lin. Ft. Circle.	Sq. Yds. Concrete.	Total Length.	Cost of Edgestone.	Cost of Concrete.	Cost of Labor.	Cost of Teaming.	Total Cost.
Powell	E. S. " Chelmsford St., northerly	67.7	22.8	81.5	90.5	\$ 38 86	\$ 36 67	\$ 15 87	\$ 8 45	\$ 63 18
Sheldon	N. S. " Bellevue St., easterly			64.2			28 89			36 67
Smith	W. S. " Westford St., southerly			225.6	387.8	141 13	101 52	88 38	24 84	28 89
Tanner	E. S. " Liberty St. to Horne St.	365.9	21.9		646.4	229 47		78 26	38 95	335 87
White	E. S. between Howard and Cambridge Sts.	627.1	19.3		245.1	85 02		36 44	25 96	346 68
Wilder	W. S. from Dracont St. to Endicott St.	225.8	19.3				69 52			147 42
Wilder	W. S. " Broadway northerly			154.5						69 52
White	E. S. in front premises Nos. 496, 502 and 508.				174.6	60 23		18 37	11 80	90 40
White	E. S. from Moody St. to Bodwell Avenue.	174.6	29.0		697.1	250 21		101 08	34 85	386 14
White	W. S. " Endicott St., northerly	668.1	23.4		241.1	91 02		35 29	18 99	135 30
West Sixth	N. S. " Aiken Avenue to Exeter St.	217.7	17.1		218.1	80 97		27 69	15 95	124 61
West Sixth	N. S. " East line St. Louis Church, westerly to Ennell St.	522.3	17.6	380.9	539.9	192 32	180 59	58 64	36 88	408 43
		11,242.5	499.8	2,042.0	11,742.3	\$4,212 35	\$940 60	\$1,792 06	\$819 72	\$7,764 73

HIGHWAYS AND STREETS.

TABLE SHOWING AMOUNTS SPENT ON PRINCIPAL WORK SINCE THE YEAR 1900.

DESCRIPTION.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
Macadamizing	\$ 21,513 05	\$ 18,373 05	\$23,672 24	\$30,434 78	\$22,852 66	\$35,031 65	\$25,606 25	\$30,751 14	\$38,216 88	\$10,757 37
Streets graded	14,566 96	9,078 75	12,353 13	10,965 06	15,619 92	15,983 92	24,130 91	6,803 49	14,865 96	15,916 00
Curbing, new	4,203 13	8,088 01	8,335 25	7,327 83	7,397 69	2,850 06	1,017 45	5,257 82	4,568 32	4,482 16
Curbing, relaid	684 94	645 17	2,412 73	2,482 92	1,116 32	1,092 76	1,507 32	1,434 36	1,232 05	1,755 65
Gutters, new	1,795 91	927 78	2,627 33	1,593 78	1,736 87	1,568 64	2,028 64	1,830 23	2,440 27	1,644 05
Cinder sidewalks	2,636 33	3,015 86	5,396 11	8,613 30	2,979 66	2,551 05	2,793 34	4,643 84	3,684 33	6,777 96
Gutters relaid	210 12	187 11	207 61	12 50	509 85	113 09	265 56	567 52	1,033 73	710 28
Paving, new	6,948 67	4,474 39	426 00	373 26	921 12	193 70	381 25	7,119 68	6,866 05	7,119 68
Paving, relaid	1,553 39	1,510 23	2,062 28	2,752 34	3,006 47	3,703 54	334 30	1,171 62	1,629 54	3,517 75
Crosswalks, new	1,053 39	445 50	2,051 26	2,750 26	1,203 89	1,289 96	1,048 91	811 78	1,166 20	273 58
Crosswalks, relaid	553 08	405 26	744 11	770 29	364 44	53 49	386 79	643 39	519 89	138 51
Crosswalks, repaired	21,164 75	28,473 75	31,379 73	38,256 59	38,867 31	40,181 75	39,265 88	88 92	77 49	133 85
Cleaning streets	4,890 22	8,436 77	17,836 03	9,186 63	44,878 86	33,354 07	13,870 91	32,922 03	41,173 10	41,581 59
Removing snow .....	.....	.....	558 20	108 55	.....	.....	.....	20,907 69	4,686 42	11,992 94
Trimming trees .....	.....	.....	558 20	108 55	.....	.....	.....	.....	.....	.....
Repairing streets	2,829 46	1,827 97	1,026 01	993 07	2,875 92	3,673 06	2,805 85	5,580 84	2,789 39	886 61
Total expenditures	171,365 20	134,239 89	275,616 02	226,984 66	216,482 71	214,065 48	239,457 17	205,506 82	270,762 19	236,627 61
Valuation of personal property	61,843 53	48,801 07	63,309 17	78,250 91	75,632 09	71,256 75	77,644 24	82,074 57	80,117 89	86,973 26
Relaying sidewalks	151 33	273 11	643 30	1,510 99	670 68	1,280 13	1,200 82	200 99	62 86	1,022 06
Repairing bridges	5,736 13	9,109 85	2,077 42	5,498 50	12,901 46	15,209 64	3,571 60	695 63	7,522 34	5,093 06
New walls	1,196 85	253 97	186 00	540 89	1,757 72	407 76	896 94	593 67	556 31	726 82
Top-dressing gravel streets .....	.....	.....	.....	.....	.....	.....	1,178 89	.....	.....	.....
Grading streets with cinders .....	.....	.....	.....	.....	.....	.....	740 86	2,267 99	2,332 20	2,786 90
Top-dressing macadam streets .....	.....	.....	.....	.....	.....	.....	9,991 17	7,399 34	7,399 34	6,700 62
Repairing cinder sidewalks .....	.....	.....	.....	.....	.....	.....	259 21	.....	.....	.....
Hassam paving .....	.....	.....	.....	.....	.....	.....	.....	5,938 73	10,554 02	.....
Granite pavement, Hassam concrete foundation .....	.....	.....	.....	.....	.....	.....	.....	8,468 95	34,131 72	51,405 43

HIGHWAYS AND STREETS.

TABLE SHOWING WORK DONE YEARLY SINCE 1900.

DESCRIPTION.	1500.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
Macadam.	69,220	36,476	55,905	50,275	54,537	58,977	38,869	38,638	49,195	15,904
Streets graded,	43,712	53,400	47,665	23,347	36,318	44,967	39,875	7,975	20,844	25,790
Curbing, new,	3,767	11,032	13,151	12,580	12,128	5,285	1,646	10,123	6,488	14,410
Curbing, relaid,	6,987	6,965	16,656	17,735	8,276	8,980	9,638	11,257	8,956	11,135
Gutters, new,	13,520	10,652	24,791	15,810	13,638	11,511	14,335	11,497	15,127	3,819
Gutters, relaid,	1,465	3,273	1,395	228	5,106	1,738	1,778	4,460	5,812	3,417
Under sidewalks,	51,478	45,346	92,262	101,480	42,190	33,527	39,652	55,146	58,511	91,987
Paving,	12,867	1,843	416	555	444	63	304	4,201	4,201	4,337
Crosswalks,	509	£40	2,215	2,199	1,166	1,207	1,166	955	1,221	274
Crosswalks, relaid	702	2,098	2,193	2,583	1,328	246	1,232	1,830	1,840	777
Streets accepted, miles,	0.78	0.38	1.04	1.43	1.451	1.89	4.17	0.49	1.19	69
Relaying brick sidewalks,	481	573	3,216	3,820	2,729	2,479	2,535	711	210	2,236
New walls,	1,580	210	412	282	936	291	528	490	263	494
New catch basins,	274	96	102	27	53	56	24	39	36	47
Top-dressing gravel streets,							5,542			
Grading streets, chinders,							2,205			
Top-dressing macadam,							10,713			
Repairing chunder sidewalks,							5,750			
Hassam pavement,										
Granite pavement on Hassam										
concrete foundation,										
Paving relaid,										
	3,905	5,500	6,827	6,600	8,423	10,992	574			
								2,122	10,670	15,959
								1,780	3,432	3,738

CATCH BASINS BUILT.

STREETS.	LOCATION.	COST	
		Re- paired.	New.
Aiken	West side, 200 ft. north of north line Perkins St.	\$ 36 63	
Aiken	West side, 388.7 ft. north of north line Perkins St.	31 18	
Aiken	East side, 200 ft. north of north line Perkins St.	42 63	
Aiken	East side, 388.7 ft. north of north line Perkins St.	46 91	
Aiken	West side, 5 ft. north of north line West Sixth St.	42 60	
Andover	South side, at east line Butman Road		\$76 70
Bridge	East side, 39 ft. south of Central Bridge	28 19	
Bridge	East side, 41 ft. south of Central Bridge	26 01	
Bridge	West side, 41 ft. south of Central Bridge	25 96	
Bridge	West side, 37.5 ft. south of Central Bridge	31 10	
Bridge	East side, 70.7 ft. north of north line Merrimack Square		40 95
Bridge	East side, 8 ft. north of south line French St.		45 10
Bridge	East side, 6.7 ft. south of south line Amory St.		41 17
Bridge	East side, centre of Amory St.		28 91
Bridge	West side, at south line Paige St.	31 85	
Bridge	West side, 4 ft. south of south line French St.		47 27
Bridge	West side, 34 ft. south of south line Amory St.		46 10
Bridge	East side, 131 ft. north of north line Billings St.		49 47
Bridge	West side, 131 ft. north of north line Billings St.		40 39
Cheever	South side, 13 ft. south of south line Tucker St.	27 69	
Cheever	South side, 34 ft. north of north line Tucker St.	22 44	
Dalton	East side, 149 ft. north of north line Ennell St.		48 77
Dalton	West side, 149 ft. north of north line Ennell St.		43 91
Fletcher	West side, 18 ft. south of south line Broadway		26 33

CATCH BASINS BUILT—Continued.

STREETS.	LOCATION.	COST	
		Re- paired.	New.
Ford	North side, 15.3 ft. west of west line Cabot St.		\$24 91
French	North side, 9 ft. west of west line Bridge St.		38 37
French	South side, 12 ft. west of west line Bridge St.		41 72
Gardner Ave. .	West side, 135 ft. south of south line Moody St.		52 56
High	East side, 247.5 ft. south of south line Rogers St.		43 19
High	East side, 6 ft. south of south line Rogers St.		45 31
Hildreth	North side, 11.7 ft. west of west line Coburn St.	\$11 14	
Hudson	North side, 120 ft. east of Int. Essex St. at Intake ..		48 51
Hurd	North side, 7 ft. west of west line Lawrence St.	27 43	60 51
Market	South side, 14 ft. west of west line Universalist Church	46 08	
Manchester ...	North side, 347 ft. west of west line Palmer St.		56 47
Merrimack ...	South side, at west line Court St.		48 54
Merrimack ...	South side, 18.5 ft. east of east track B. & M. R. R. at Dutton St.		
	North side, 5 ft. east of east track B. & M. R. R. at Dutton St. (to replace another)		36 08
Merrimack	North side, 8 ft. west of west line Kirk St.	27 15	
Merrimack	South side, opposite one west of west line Kirk St.	18 46	
Merrimack	North side, 207 ft. east of east line Kirk St.	31 94	
Merrimack	North side, at west line John St.	10 50	
Merrimack	South side, 15 ft. west of west line Palmer St.	21 17	
Merrimack	South side, 85 ft. east of east line Palmer St.	29 10	
Merrimack	South side, 295 ft. east of east line Palmer St.	37 16	
Merrimack	North side, 15 ft. west of west line Central St.	20 91	
Merrimack	North side, 39.5 ft. east of west line Central St.		52 06

CATCH BASINS BUILT—Continued.

STREETS.	LOCATION.	COST	
		Re- paired.	New.
Merrinack	North side, at west line Bridge St.	\$31 18	
Merrinack	South side, 10 ft. west of west line Prescott St.	31 82	
Merrinack	North side, 16 ft. west of east line Central St.		\$28 59
Merrinack	South side, 16 ft. west of east line Central St.		30 16
Merrinack Sq. . . .	South side, 3.6 ft. west of east line Massachusetts Storehouse		41 25
Middlesex	South side, 218 ft. east of east line Thorndike St.	16 89	
Middlesex	South side, 20.5 ft. east of west line Thorndike St.	10 24	
Middlesex	South side, 60 ft. west of west line Thorndike St.		42 96
Middlesex	South side, 60 ft. west of west line Thorndike St.		28 15
Middlesex	North side, 57 ft. east of east line Howard St.	15 72	
Middlesex	South side, 57 ft. east of east line Howard St.	17 19	
Middlesex	South side, 6.7 ft. west of west line Garnet St.	12 08	
Middlesex	South side, 18.5 ft. west of east line Revere St.	15 49	
Middlesex	South side, 86.7 ft. east of east line King St.	20 27	
Middlesex	North side, 44 ft. west of east line Revere St.	10 18	
Middlesex	North side, 150 ft. east of east line King St.	15 96	
Middlesex	South side, 210 ft. east of east line Thorndike St.	17 81	
Middlesex	South side, 10 ft. east of east line Thorndike St.	8 90	
Middlesex	North side, 17.5 ft. east of east line Thorndike St.	5 06	
Moody	North side, 64.5 ft. east of east line Sixth Ave.		46 15
Parker	South side, 65.4 ft. east of east line Sixth Ave.		39 60
Parker	North side, 176 ft. west of west line Wilder St.		42 21
Parker	South side, 176 ft. west of west line Wilder St.		47 42
Parker	South side, 5 ft. west of west line Highland Ave.		41 18

CATCH BASINS BUILT—Continued.

SUPERINTENDENT OF STREETS.

179

STREETS.	LOCATION.	cost	
		Re- paired.	New.
		\$	\$
Pawtucket	South side, 11.5 ft. west of west line Wilder St.		38 11
Pawtucket	North side, 19 ft. east of east line Rolfe St.		50 08
Pawtucket	South side, 14.7 ft. east of east line Rolfe St.		46 19
Pine	South side, 18 ft. west of west line Wilder St.		51 48
Pine	South side, 4 ft. east of east line Stevens St.		49 82
Plain	South side, 7 ft. east of angle west of Court St.		60 66
Powell	West side, at north line Parker St.		46 66
Sheldon	South side, 8 ft. west of east line Royal St.		57 90
Tanner	South side, 300 ft. east of opposite east line Cambridge St.		55 28
Tanner	South side, 13 ft. west of west line Cambridge St.		59 28
Thorndike	West side, 29 ft. north of north line West Jackson St.		49 16
Thorndike	East side, 179.5 ft. north of north line West Jackson St.	18 06	43 92
Thorndike	192 ft. north of north line west Jackson St.		
Upham	North side, 19.5 ft. west of west line Chelmsford St.		49 80
Upham	South side, 9.5 ft. west of west line Chelmsford St.		46 72
		\$921 08	\$2,176 03

TABLE OF SMOOTH PAVEMENTS.

ASPHALT PAVEMENT.

STREETS.	LOCATION.	YEAR LAID.	COST PER YARD.	LAID BY.	SQ. YDS.	COST.	TERM OF GUARANTEE.	GUARANTEE EXPIRES.	REPAIRS.		
									Expended to 1909.	1909.	Total.
Aiken	Cheever St. to Hall St. and Hall St. to Aiken St. Bridge	1898	\$1 97	Dunn Brothers	5,248 94	\$ 10,340 41	5 years	1903	\$4,488 19	\$705 27	\$5,193 46
Hall	Aiken St. to Aiken St.	1898	1 97	Dunn Brothers	469 90	925 70	5 years	1903	653 07	18 20	671 27
Market	Central St. to Palmer St.	1900	2 80	Merrimack Paving Co.	3,379 04	9,462 24	5 years	1905	143 42		143 42
Broadway	Suffolk St. to Walker St.	1901-2	2 73	Merrimack Paving Co.	14,719 27	40,183 61	10 years	1912	1,170 94		1,170 94
Suffolk	Merrimack St. to Broadway	1901	2 73	Merrimack Paving Co.	3,210 06	8,763 46	10 years	1912	108 15	43 61	151 76
Aiken	Lakeview Ave. to Aiken St. Bridge ..	1902	2 95	Merrimack Paving Co.	2,435 66	7,185 20	10 years	1912			
Charles	Central St. to Lawrence St.	1902	2 96	Union Paving Co.	2,714 54	8,035 04	10 years	1912			
Kirk	Merrimack St. to Paige St.	1902	2 95	Merrimack Paving Co.	1,883 52	5,556 38	10 years	1912			
Paige	Kirk St. to John St.	1902	2 95	Merrimack Paving Co.	1,616 86	4,769 74	10 years	1912			
Westford	Loring St. to Wilder St.	1902	2 97	Union Paving Co.	3,310 32	9,831 65	10 years	1912			
Moody	Tilden St. to Spalding St.	1906	2 69	Barber Asphalt Co.	8,319 87	22,380 45	10 years	1916	7 87		7 87
					47,307 98	\$127,433 88			\$6,571 64	\$767 08	\$7,338 72

ASPHALTINA PAVEMENT.

Charles	Central St. to Gorham St.	1897	\$2 65	Boston Paving Co.	1,633 76	\$ 4,329 46	5 years	1902			
Gorham	L. & A. R. R. to Cosgrove St.	1898	2 50	Boston Paving Co.	7,710 32	19,275 79	5 years	1903	\$2,123 93	\$ 518 52	\$2,642 45
Mammoth Road	Fourth Ave. to Eighth Ave.	1899	2 50	Boston Paving Co.	5,787 82	14,469 55	5 years	1904	523 68		523 68
Suffolk	Adams St. to Broadway	1899	2 50	Boston Paving Co.	2,848 13	7,120 33	5 years	1904	112 35		112 35
Westford	Chelmsford St. to Smith St.	1899	2 50	Boston Paving Co.	4,503 46	11,258 66	5 years	1904	1,257 44	708 73	1,966 17
Westford	Smith St. to Loring St.	1899	2 50	Boston Paving Co.	6,989 00	17,472 50	5 years	1904	1,781 11	1,314 07	3,095 18
					29,472 49	\$73,926 29			\$5,798 51	\$2,541 32	\$8,339 83

BITULITHIC PAVEMENT.

Adams	Cross St. to Salem St.	1901	\$1 35	City	3,793 90	\$ 5,210 84			\$ 784 50		\$ 784 50
Decatur	Salem St. to Merrimack St.	1901	1 35	City							
Merrimack	Cabot St. to Pawtucket St.	1902-3	1 83	Warren Brothers Co.	3,366 99	6,163 59	5 years	1908	357 30		357 30
Pleasant	Andover St. to Rogers St.	1902	2 13	Warren Brothers Co.	6,336 51	13,496 77	5 years	1907	3 70		3 70
Central	Elm St. to Gorham St.	1903	2 25	Warren Brothers Co.	10,009 42	22,521 19	5 years	1908	96 10		96 10
					23,506 82	\$47,390 39			\$1,241 60		\$1,241 60

HASSAM PAVEMENT.

John	Merrimack St. to north side Paige St.	1907	\$1 78	City	1,753 80	\$ 3,124 14					
Paige	Bridge St. to John St.	1907	1 70	City	1,654 30	2,814 59					
Westford	Wilder St. to west line Windsor St. ..	1908	1 64	City	6,423 43	10,554 02					
					9,831 53	\$16,492 75					

GRANITE PAVEMENT ON HASSAM CONCRETE FOUNDATION.

Central	Merrimack St. to near canal bridge ..	1907	\$3 99	City	2,122 50	\$ 8,468 95					
Central	Canal Bridge to Towers Corner	1908	3 56	City	4,635 62	16,501 31					
Middlesex	Central St. to westerly line Garnet St.	1908	2 92	City	6,034 39	17,630 41					
Middlesex	Garnet St. to B. & M. R. R.	1909	3 25	City	4,431 44	14,392 50					
Bridge	Between Central Bridge and Mer'k Sq.	1909	3 29	City	3,604 57	11,871 75					
Mer'k Sq. and Mer'k St.	Eastern Canal to Dutton St. (R. R. tracks)	1909	3 17	City	7,923 08	25,141 18					
					28,751 60	\$ 94,006 10					

BRICK PAVEMENT.

Aiken	Ford St. to Merrimack St.	1901	\$2 42	City	1,843 60	\$4,474 39					
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RECAPITULATION.

Asphalt	47,307 98	\$127,422 88						\$7,338 72
Asphaltina	29,472 49	73,926 29						8,339 83
Bitulithic	23,506 82	47,390 39						1,241 60
Hassam	9,831 53	16,492 75						
Granite, Concrete Foundation	28,751 60	94,006 10						
Brick	1,843 60	4,474 39						
	140,714 02	\$363,712 80						\$16,920 15

TABLE OF SEWERS BUILT IN 1909.

STREETS.	LOCATION.	LENGTH AND SIZE PIPE SEWERS.					BRICK SEWERS.			Average Depth	Cubic Yards Ledge	Manholes	Begun.	Finished.	Cost.	Total Length.
		6"	8"	10"	12"	18"	Iron Pipe.	Length.	Size.							
Amory	From Bridge St., westerly				38.0					9.7			Sept. 13	Sept. 16	\$ 111 32	38.0
Andover	" end to Harland Avenue.				313.5					9.2		2	Sept. 23	Oct. 11	1,071 57	313.5
Beacon	" end to No. 105, northerly				234.5					11.1		1	June 17	June 30	665 54	234.5
Bennett.	" manhole in Shaw St. ext., northerly			467.0						8.4	144.0	2	Nov. 8	Jan. 1, 1910	2,536 28	467.0
Bridge	" Billings St., northerly				266.4	145.0				10.1	78.5	3	Sept. 22	Oct. 29	2,024 67	411.4
Cambridge	" Tanner St., northwesterly				303.3					8.9		2	July 30	Aug. 13	958 33	303.3
Cornell	" end, southerly	201.0		39.2						4.0			Aug. 19	Aug. 25	398.58	240.2
Dalton	" Ennell St., northerly			119.0						8.8		1	May 12	May 15	301 45	119.0
Dracut	" Sixth Ave. to Fourth Ave.				705.2					8.5	52.0	3	June 30	Aug. 9	2,481 29	705.2
E	" Powell St., westerly			204.0						8.6		1	Nov. 9	Nov. 17	463 74	204.0
Exeter and Barker	" Lakeview Avenue to Barker St. ...				339.0					11.0		2	June 1			
	" Exeter St., northerly			224.5						10.7		1		June 16	1,433 54	563.5
French	" Bridge St., westerly				38.0					10.5			Aug. 3	Aug. 5	65 16	38.0
Georgia Avenue	" end, southerly to Ashland St.			190.0						9.3		1	July 21	July 29	517 04	190.0
Grove, rebuilt	" School St., westerly				317.1					8.1		1	Nov. 19	Dec. 15	803 94	317.1
Hildreth	" Essex St., easterly				194.0			167.6	27" x 18"	9.8	38.0	3	Nov. 1	Dec. 4	2,151 91	361.6
Lawrence St. outlet	" Lawrence St., southerly		84.0		315.0		101.3 12"			4.3		3	Oct. 4	Nov. 5	1,219 74	500.3
Marsh	" School St., westerly			177.8						8.1	20.0	2	Dec. 7	Dec. 24	671 52	177.8
Moore	" end near Agawam St., westerly ..				80.6					10.4	23.0	1	Dec. 6	Jan. 1, 1910	1,069 94	80.6
Mt. Hope	" Sixth Avenue, northwesterly				216.0					9.7	73.0	1	Aug. 11	Sept. 16	1,849 64	216.0
Oaklands, Frothingham St.	" end to Draper St.							333.0	48"	27.0	886.0	1	Jan. 22	Mar. 29	11,768 29	333.0
Parker	" Wilder St., westerly				297.9					8.6		2	Aug. 13	Aug. 31	884 00	297.9
Prescott, rebuilt	" Merrimack Square, southwesterly .							287.5	37½" x 25"	16.5	80.0	2	July 7	Aug. 19	5,121 81	287.5
Plain, etc.	" Court St. to Quebec St.					275.5				10.6		2	May 10			
Quebec	" Plain St. to Ayer Avenue					238.5				8.9		1				
Ayer Ave.	" Quebec St. to Boston Road					371.7				13.3		2				
Boston Road	" Ayer Avenue to Fruit St.					372.8				16.7		2				
Fruit	" Boston Road to Marshall Road ..				656.3					13.7		3				
Marshall Road	" Fruit St., southerly				238.5					11.2		1		July 29		
Mariner	" Boston Road, westerly				426.8					11.4		1	July 30	Aug. 14		
Penn Ave.	" Ayer Avenue, northerly				340.0					10.5		1	Aug. 16	Aug. 27	6,802 98	2,920.1
Richardson	" Centralville main, westerly				122.0					12.2	115.0		June 2	July 2	1,350 12	122.0
Sixth Avenue	" Dunfey St., southwesterly				107.0					9.2			Sept. 20	Sept. 24	255.02	107.0
State	" end, southerly		133.0							4.6			Sept. 24	Sept. 27	187 31	133.0
Varnum Avenue	" end at No. 27, westerly				885.7					9.8	220.0	5	May 24	July 9	4,014 21	885.7
Wannalancit, rebuilt	" 171 feet south of Pawtucket St., southerly				284.0					8.7			July 29	Aug. 27	555 74	284.0
		201.0	217.0	1,421.5	6,718.8	1,403.5	101.3	788.1			1,729.5				\$51,734 68	10,851.2
<div> <div>Lineal feet of sewers built in 1909, 10,851.2</div> <div>2.05 miles</div> <div>Three intakes built in Frothingham St.</div> <div>\$770 70</div> </div> <div> <div>" " " " previously built</div> <div>101.73 "</div> <div>One intake " " Andover St.</div> <div>76 70</div> </div> <div> <div></div> <div></div> <div>" " " " Plain St.</div> <div>207 76</div> </div> <div> <div></div> <div>103.78 "</div> <div>" " " " Hildreth St.</div> <div>283 46</div> </div> <div> <div>Deduct 888.6 lineal feet of sewers rebuilt</div> <div>.17 "</div> <div>Catch basins repaired at Monument Square</div> <div>294 96</div> </div> <div> <div></div> <div></div> <div>Oaklands cinder bed repaired</div> <div>151 82</div> </div> <div> <div>Length of sewers Jan. 1, 1910</div> <div>103.61 "</div> <div>Lawrence St. cinder bed built.</div> <div>467 67</div> </div> <div> <div></div> <div></div> <div></div> <div>2,253 07</div> </div>																
															\$53,987 75	10,851.2



ANNUAL REPORT

OF THE

Chief Engineer

OF THE

..Fire Department..

OF THE

CITY OF LOWELL

FOR THE YEAR 1909



LOWELL, MASS.,
THE LAWLER PRINTING COMPANY
29 PRESCOTT STREET
1910

REPORT

CHIEF'S OFFICE,

PALMER ST. ENGINE HOUSE,

LOWELL, January 1, 1910.

To the City Council of the City of Lowell:

GENTLEMEN:—In accordance with the requirements governing the Fire Department, it becomes my duty, as Chief Engineer, to present to you the annual report of the Fire Department of the City of Lowell for the year ending December 31, 1909.

The report will be found to contain statements in detail embracing the amount of expenditures, a register of the department, with age, residence, and occupation of each member, a record of all fires and alarms which have occurred during the year, and the cause thereof, with the names of the owners and occupants, the loss and insurance, as nearly as could be ascertained and such information as is thought proper for your consideration.

The following statement will show the receipts and expenditures:

RECEIPTS

Appropriation	\$152,175 00
Transferred to General Treasury	1,644 15
	<hr/>
	\$150,530 85

EXPENDITURES

Pay rolls	\$125,149 17
Water works	408 09
Hose and repairs of same	1,642 25
Telephones.....	253 53
Express and freight	55 99
Horses and use of same	1,619 60
Shoeing	2,065 37
Veterinary and medicines.....	262 75
Hay, straw and grain	8,612 92
Harness and repairs	440 57
Furniture and bedding.....	395 32
Coal and wood	2,695 75
Gas	1,998 97
Printing	216 00
Repairs on apparatus	1,734 02
Laundry	149 71
Fire alarm boxes and repairs	1,194 71
Oils, sponges, etc	1,636 21
	<hr/>
Total expenditures for the year	\$150,530 85

SALARIES OF MEMBERS OF FIRE DEPARTMENT

Chief Engineer.....	\$2,200.00 per annum
First Assistant Engineer	1,500.00 per annum
Other Assistant Engineers.....	400.00 per annum
Captain of the Companies (call).....	300.00 per annum
Call Men	200.00 per annum
Permanent Men	2.75 per day
Captain of Companies (permanent) ...	3.00 per day
Engineers of Steamers (permanent) ..	3.00 per day
Lieutenants of Companies (permanent)	2.90 per day

This department is divided into two classes, Permanent and Call. The permanent force consists of

1 Chief Engineer	27 Drivers
1 First Assistant Engineer	23 Laddermen
1 Fire Alarm Operator	6 Engineers of Steamers
48 Hosemen	8 Patrolmen
1 Lineman	

A total of 116, of which 16 are Captains and 18 Lieutenants.

The Call force consists of

3 Assistant Engineers	51 Hosemen
16 Laddermen	

A total of 70, of which there is 1 Captain.

This makes a total of 186, divided into companies as follows:

- 6 Steam Fire Engines, with Hose Wagons.
- 6 Horse Hose Companies.
- 4 Hook and Ladder Companies, 2 with Chemical Engines attached.
- 1 Protective Company.

The changes in the force during the year have been as follows:

Appointed on the Call force	12
Appointed on the Permanent force ..	17
Promoted	4
Died	2
Transferred	18

The apparatus is kept in the best possible condition, and consists at present of six Engines, twelve two-horse Hose Wagons, one Babcock Aerial Truck and three Trucks of other patterns, two Chemical Engines, one Hale Water Tower, one Patrol Wagon and Sleigh, fully equipped, six Hose Pungs, eight Fuel Wagons, two Wagons and one Sleigh for use on fire alarm, one Wagon and Sleigh for Chief's use, one Wagon for Assistant Chief's use, and thirty Fire Extinguishers. In reserve there are three two-horse Hose Reels.

Engine 2 has been in service since 1882, and should be sent off and be rebuilt, which will make her as good as new.

FIRE ALARM

This branch of the service has been maintained in most excellent condition by the operator, Mr. H. C. Fernald.

There have been two hundred and fifty-seven alarms given from signal boxes, and the "No School" signal has been given eleven times the past year.

Connected with the circuit there is one ten-circuit non-interfering repeater, one ten circuit cut-out and testing switchboard, one slate protector, twelve galvanometers, twelve bell-strikers, seventeen large gongs for engine houses, eight small gongs, nineteen indicators, eighteen electro-

magnets and connections for opening stall doors, one hundred and twenty-nine public and thirteen private signal boxes, one hundred and ten miles of wire, the whole supplied with a storage battery of four hundred and seventy-five cups.

There is also one large gong and indicator combined in the Police Station, one large gong at Pumping Station, Merrimack Square, Tower's Corner, corner of Bridge and First Streets, near the Northern Depot, and corner Moody and Aiken Streets.

An additional appropriation will be needed this year to extend the placing of wires underground.

TELEPHONE

There are connected with this system twenty-one stations, consisting of transmitter, telephone bell and battery; there are also twenty-six tap bells for the rooms of the Engine Houses, and about forty-four miles of wire owned by the City, under the care of the Fire Alarm Operator, except the receivers and transmitters, which are leased from the Telephone Company. The ringing line is supplied by a storage battery of one hundred and twenty-five cups.

HORSES AND HARNESES

There are sixty-one horses in the service of the department. Thirteen new ones have been purchased the past year to take the place of thirteen that had passed their usefulness for this department. There are twelve sets of double, ten sets of three-horse hitch harnesses, and four single swinging harnesses of the Berry and Hale patents.

PROTECTIVE DEPARTMENT

This department is maintained by the city and consists of nine permanent men. They responded to three hundred and thirty-nine alarms, in service four hundred and sixteen and one-half hours, spread four hundred and forty covers, used two hundred and thirty-four extinguishers, raised one hundred feet of ladders, eleven hundred and seventy-four hours inspection duty.

Chemical B, attached to Truck 3, used seventy-seven tanks (eighty-five gallons). Chemical C, attached to Truck 2, used sixty-one tanks (eighty-five gallons). \

HOSE

The department received two thousand feet of 2½ inch hose the past year and will need two thousand feet of new hose the present year.

HYDRANTS

The Water Department added five new high service and ten low service hydrants the past year, the high service are located as follows: one on the west side of Aberdeen Street, three on the north side of Andover Street, and one on the west side of Clark Road. The low service as follows: one north side of Dracut, east side Gates, west side Greendale Avenue, north side Howe Court, west side Lane Street, east side Mt. Pleasant Street, east side Totman Street, north side Varnum Avenue, and two on the east side of Victor Street, making a total of one thousand two hundred and thirty-three.

FIRES AND LOSSES

The whole number of alarms of fire during the year ending December 31st, 1909 was nine hundred and sixty-three (963). Two hundred and fifty-seven (257) were given from signal boxes (one general and three second alarms included), one hundred and fifty-one (151) stills, three hundred and twenty-eight (328) telephones, seventy-nine (79) automatics, twenty-one (21) exposures, and one hundred and twenty-seven (127) reported alarms. The No School signal was given eleven (11) times. February 12, one hundred (100) blows were given for Lincoln's birthday; October 28, forty-four (44) blows were given at the funeral of Rev. J. A. Campeau. There were four hundred and thirty-one (431) fires extinguished by chemicals alone, and two hundred and twenty (220) where water was used, the remaining number were extinguished by other means or had been put out before the arrival of the department. Ninety-seven (97) fires were in brick or stone buildings, six hundred and thirty (630) in wooden buildings, and two hundred and thirty-six (236) other than building fires. The whole amount of loss except the reported ones was \$182,949.99, insurance \$3,425,017.70, paid \$174,244.19, loss above insurance \$8,705.80, valuation \$4,506,635.49. The reported loss was \$3,514.92, insurance \$675,163.00, valuation \$1,022,400.00. There have been nineteen (19) alarms for fires out of the city to which some part of the department has responded for which no insurances are kept, Dracut seven (7), Chelmsford six (6), Tewksbury three (3), Tyngsboro two (2), Manchester, N. H. one (1). April 8th, at 11.45 A. M. a telephone message was received from the Mayor of Manchester for assistance, an Engine and two Hose Wagons were sent but I am happy to say that their services were not needed, as the fire was under control before they arrived.

This city was again fortunate in having but a few large fires the past year. There have been twenty-one (21) fires where the loss was \$1,000.00 and over. January

5, a dwelling house on Andover Street belonging to Miss Fanny Reid, with several occupants, loss \$4,646.25. January 12, shoe store occupied by J. Smith and owned by the Appleton Corporation on Middlesex St., loss \$1,541.62. January 25, blocks on Merrimack Street owned by Mrs. B. M. Gillard, E. J. Medeira, Five Cent Savings Bank, with several occupants, loss \$16,635.71. February 7, dwelling on Birch Avenue, owned by J. Mellen, estate occupied by C. Campbell, loss \$1,100.00. March 22, a dwelling owned and occupied by Dr. L. Huntress, loss \$3,226.94. April 29, a dwelling owned and occupied by F. H. Swanton on Wentworth Avenue, loss \$1,952.00. May 15, a building on Lincoln Street owned by W. S. Watson and occupied by the A. C. Stern Shoe Company and Copperdix Paper Tube Co., loss \$29,136.47. June 8, a stable on Middlesex Street owned by the G. E. Stanley Est., occupied by Chas. McCarty, W. M. Baird, W. Williams and J. Nichols, four (4) horses burned, loss \$2,804.15. June 23, a block on Chelmsford Street owned by Max Goldstein and occupied by Max Isrial as a paint shop, loss \$1,105.00. June 25, a lumber yard owned by the Davis & Sargent Lumber Co. with ten dwellings and a Jewish Synagog on McIntire, Marshall and Carleton Streets, loss \$5,619.06. July 12, dwelling on Suffolk Street owned by A. C. Wheelock, several occupants, loss \$1,009.50. August 8, a brick block owned by the Wm. Kittredge Est., occupied by Derby & Morse, Auto Sign Co., Davis and Robinson Printing Offices, Middle Street, loss \$2,348.71. September 14, Beam House on Howe Street owned and occupied by the American Hide and Leather Co., building collapsed, lime slackening set fire to building, loss \$32,977.32. September 18, brick building on Lawrence Street owned by the Wamesit Power Co., occupied by the Heinze Electric Co., loss \$20,624.49. November 2, brick block on Gorham Street, owned by Mrs. A. Donohoe, occupied by O. M. Donohoe, loss \$1,682.79. November 2, stable on Smith Avenue owned by J. A. Coram, occupied by Wm. C. Doherty, auto caught

fire, loss \$3,241.50. November 5, brick block on Merrimack Street owned by J. H. Harrington, several occupants, loss \$1,416.94. November 13, Jackson and Middlesex Streets, owned by Appleton Corporation, A. C. Wheelock and others, loss \$3,794.35. November 18, Middlesex Street, brick block owned by the Davis & Sargent Lumber Co., occupied by said Company and several others, loss \$17,551.14. November 30, Merrimack Street, brick block owned by G. N. Osgood, occupied by the Sam Stern Dry Goods Co., and others, loss \$1,250.00. December 12, three story stable on Wall Street, owned by A. Lablanc, occupied by Lablanc and Rivet, loss \$1,712.19. The total loss on these twenty-one (21) fires was \$155,466.13.

There have been eleven (11) fires where the loss was between \$500.00 and \$1,000.00. January 10, an unoccupied dwelling on Lakeview Avenue owned by J. Orzana, loss \$515.98. January 17, dwelling house on Gorham Street owned by the Wm Baldwin Est., occupied by Wm. Kershaw, loss \$586.00. January 20, dwelling house on Rock Street owned by S. Redisco, occupied by T. Gendron, loss \$574.00. March 24, brick mill on St. Hyacinth Street owned by F. P. Cheney, occupied by the Lowell Shuttle Co., loss \$577.40. April 7, Pevey Bros. Foundry on Walker Street, loss \$693.00. September 4, A. C. Wheelock's block on Middlesex Street, loss \$503.50. September 20, Pascole Hernois block on Moody Street, occupied by Cebrien Polus, loss \$864.93. November 10, dwelling on Moody St. owned and occupied by M. Brounstein, loss \$573.49. November 26, A. C. Wheelock's building on Merrimack Street, occupied by Thos. Kyrreakaas as a fruit store, loss \$548.50. December 18, J. L. Chalifoux block, corner Merrimack and Central Streets, occupied by the Nelson Colonial Store Co., loss \$586.18. December 19, dwelling on South Walker Street owned and occupied by E. D. Fuller, loss \$772.20. The total loss on these eleven (11) fires was \$6,795.15.

There have been seven incendiary and supposed incendiary fires during the year which were investigated

by an aid from the Fire Marshal's office. For further particulars in regard to fires and losses I refer you to the table annexed to this report.

The following is the number of buildings of all kinds in the City:

Total number of wood buildings	-	-	-	17,486
Total number of brick buildings	-	-	-	1,063
Total number of iron buildings	-	-	-	3
Total number of stone buildings	-	-	-	54
				<hr/>
Total number of buildings of all descriptions	-			18,606
An increase during the past year of	-	-	-	198

Some of these blocks have from four to twenty tenements.

The following table shows the number of alarms of fire each month:

January	-	-	-	60	August	-	-	-	79
February	-	-	-	31	September	-	-	-	57
March	-	-	-	51	October	-	-	-	66
April	-	-	-	87	November	-	-	-	56
May	-	-	-	40	December	-	-	-	83
June	-	-	-	93	Reported	-	-	-	127
July	-	-	-	133					<hr/>
					Total	-	-	-	963

The following table shows the causes of the different alarms as near as could be ascertained:

Awnings	2	Fat on stove	7
Alarms for same fire	54	Fire works	1
Brush	32	Fire crackers	2
Beds	6	Flushing sewer	1
Building fire with oil	2	Gasoline explosions	14
Burning hole in floor	1	Gas leak	5
Bon fire	5	Gas jet set curtain	4
Burning insulation	1	Gas explosion	1
Building collapsed	1	Grass	40
Boy caught in turnstile	1	Gas stove	2
Careless use of matches	26	Gas flat iron	1
Chimney	68	General alarm	1
Careless smoking	9	Hot Ashes	7
Cigarette stub	13	Hot air balloon	1
Children and matches	25	Incendiary	4
Combustion	20	Lantern exploded	1
Clothes in closet	3	Lime slacking	3
Cleaning clothes with naphtha	1	No School	11
Cleaning beds with naphtha	2	Oil stove	12
Careless use of candles	2	Oil lamp	21
Dump	58	Overheated stove	12
Drying paint	1	Overheated stove pipe	3
Drying plaster	2	Out of the city	18
Defective chimney	27	Overturnd stove	1
Defective motor	1	Overheated thermostat	7
Detailed to Auto Races	4	Overheated cupolo	1
Dust shute	1	Overheated furnace	1
Electric wires	5	Overheated boiler	1
Electric flat iron	1	Overheated oven	1
Exposure	20	Oakum	1
Electric car collision	1	Pumping water from cellars	2
False alarm	4	Picture machine	1
Furnace smoking	1	Rubbish	25
		Rat nest in partition	5

Reported alarms	127	Steam radiator burst	1
Rekindled	3	Stove smoking	13
Second alarm	3	Thawing water pipes	8
Shavings	3	Tar kettle	4
Supposed incendiary	3	Thermostat system	
Sun set paper in window	1	out of order	66
Spark set roof	38	Water leak	7
Spark set sawdust	2	Wax on hot stove	1
Spark set hay	2	Wood spittoon	1
Spark set lounge	1	Washing streets	11
Spark set electric car	1	Wetting buildings	12
Spark set poles	1	Wires crossed	3
Spark set bleachers	1	Wood in engine	1
Sparkler demonstration	1	Unknown	17

SERVICE OF THE DEPARTMENT FOR 1909

	Number of alarms attended	Number of hours worked	Feet of hose laid	Hours of hydrants in use	Number of extinguishers used	Number of chemical tanks used	Feet of ladders raised	Hours engines worked	Number of covers used
Engine	1	88	8,700	22	40			4½	
"	2	166	15,650	37	82			13½	
"	3	252½	10,050	36½	22			6½	
"	4	227	18,200	44½	61			10	
"	5	191	11,150	12½	275		72	8	
"	6	223¾	19,800	48½	58			12½	
Hose	7	122	13,150	24½	27				
"	8	174	24,000	63½	68				
"	9	105	9,600	20	33				
"	10	146	12,150	37½	39				
"	11	60	4,950	7	45				
"	12	3			4				
Truck	1	71					1,247		
"	2	244½				61	2,026		
"	3	311½				77	2,565		
"	4	115¼					2,451		
Protective	339	416½			234		100		400
Total	2,458	3,082¼	147,400	353½	988	138	8,461	55	400

The following are the number of alarms answered by members of the Department on their days off:

Abare, 8; G. L. Alcott, 3; Akers, 2; Adams, 5; H. Boynton, 3; Broadbent, 19; Bartlett, 6; R. E. Burns, 5; Barrett, 12; Bryan, 1; Bishop, 5; J. M. G. Burns, 4; F. G. Collins, 13; T. Collins, 5; Carland, 10; Convery, 1; Conway, 6; Crowley, 10; Campbell, 4; M. I. Collins, 1; Chapman, 1; D'Amours, 1; Dunn, 5; E. H. Dearth, 2; A. Dearth, 1; W. T. Dolan, 1; Eagan, 1; Finnegan, 1; Freeman, 1; Fletcher, 7; Fuller, 5; Foley, 9; Foss, 9; Finnerty, 1; Flint, 6; Flagg, 1; Holt, 2; Hemenway, 5; Hurley, 3; W. H. Halstead, 12; J. W. Halstead, 10; H. F. Harris, 3; D. W. Hilliard, 2; Ismond, 1; Jantzen, 8; Knapp, 1; Kidder, 7; Lowney, 2; Lovett, 2; Lepine, 1; McCafferty, 6; Maker, 8; Morrison, 5; Maynard, 16; Merrill, 4; Mahoney, 1; P. J. Mooney, 3; McCormick, 1; McCarty, 1; McKissock, 3; Oke, 13; O'Laughlin, 1; Otley, 2; O'Connell, 1; Perham, 4; Pendexter, 8; Prescott, 6; Rowell, 9; Russell, 11; Rogers, 7; Reed, 4; Rinehart, 11; J. E. Sullivan, 3; Smith, 1; Schofield, 8; Simons, 4; Sheehan, 1; Strout, 3; Tighe, 14; Turner, 2; Townsend, 10; Wilkins, 6; Walsh, 1.

There were ten deaths by burning the past year. February 4, A. W. Norcross, Stackpole Street, clothes caught fire from gas jet. March 24, Rose A. Roughen, Lagrange Street, 80 years old, oil lamp. April 6, Daniel Guthrie, Appleton Street, oil lamp explosion. April 16, Arthur Champagne, Queen Street, 5 years old, playing with matches in bed. May 3, Mrs. M. Larrault, Railroad Street, oil lamp explosion. May 10, Mrs. Emilio Gaudette, Hadley Street, building fire with kerosene oil. May 22, Mrs. A. Patenaude, oil lamp explosion. July 28, Josephine Kelley, Lakeview Avenue, 4 years old, a boy set her clothes on fire. October 4, Mabel Gillis, Rock Street, 3 years old, playing with matches. Oct. 5, Mrs. Mary Harrington, Broadway cor. Dutton, oil lamp explosion.

There have been two deaths in the Department the past year. J. S. King, a call man in hose 9, joined the department December 1902, died May 18, 1909. H. E. Wilkins, a permanent man, joined the department January 1890, Died October 2, 1909.

The following is a list of the men injured the past year: Capt. D. H. Crowley, J. N. Bernier, C. Collins, Hose 8; Lieut. Akers and G. S. Alcott, Engine 2; Lieut. Sullivan, P. H. Mooney and M. Connor, Engine 4; G. T. Halstead and L. P. Reed, Engine 3; Lieut. Sullivan and P. McLaughlin, Hose 7; R. Oatley, Engine 1; J. C. O'Neil, Engine 5; R. E. Burns, Engine 6; G. A. Dickey, Truck 2; H. F. Harris, Truck 3; M. W. Wright, Truck 4; J. J. Donohoe, Truck 1.

LOWELL FIREMEN'S FUND ASSOCIATION

This benevolent association was organized December 17, 1885, for the purpose of furnishing relief to such of its members as should receive injuries while in the discharge of their duties. The income is derived from an annual assessment upon each member, and by donations from citizens and others; and in behalf of the members of the association, I would return thanks to all those who have aided us in the past.

The following donations have been received during the past year:

Town of Chelmsford.....	\$150 00
Town of Tyngsboro.....	50 00
Town of Tewksbury.....	25 00
Davis & Sargent Lumber Co.....	25 00
Mrs. J. P. Gray.....	25 00
Mrs. Alden Gifford.....	10 00
	<hr/>
	\$285 00

The following shows the amount standing to the credit of the association December 31, 1909:

Balance on hand Dec. 31, 1908.....	\$25,104 06
Cash received to Dec. 31, 1909.....	1,415 79
	<hr/>
Total.....	26,519 85
Cash paid out.....	1,997 34
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On hand Dec. 31, 1909.....	\$24,522 51

In conclusion I wish to thank my Board of Engineers, officers and members of the department for their prompt-

Schedule of all the Fires which Occurred in the City of Lowell during the Year ending December 31, 1909

Date	Time	Signal	Recall	Location	Wood, Brick or Stone	Owned by	Occupied by	Occupied as	Amount of Damage		Amount of Insurance		Am't of Insurance Paid		Cause of Fire	Date	Time	Signal	Recall	Location	Wood, Brick or Stone	Owned by	Occupied by	Occupied as	Amount of Damage		Amount of Insurance		Am't of Insurance Paid		Cause of Fire
									Building	Contents	Building	Contents	Building	Contents											Building	Contents	Building	Contents	Building	Contents	
Jan. 1	3 30 p.m.	Tel.	12 34 p.m.	First st.	Wood	Locks & Canals.	Stable	Dump							Hamp	Apr. 27	2 30 p.m.	28	3 05 p.m.	Coolidge st.	Wood	A. S. Hayton	J. Bedel	Dwelling							Gasoline explosion
Jan. 1	12 30 p.m.	Tel.	12 34 p.m.	Second st.	Wood	E. A. Orest	Stable	Dwelling							Gasoline explosion	Apr. 27	2 30 p.m.	28	3 05 p.m.	Coolidge st.	Wood	A. S. Hayton	J. Bedel	Dwelling							Gasoline explosion
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Jan. 1	12 30																														

*Out of the City

^aOut of the CH

Schedule of all the Reported Fires which Occurred in the City of Lowell during the Year ending December 31, 1909

ness and efficiency in the performance of their duties. To the Mayor and City Council, Clerk, Auditor, Treasurer, Superintendents of the different departments, and all others who have in any way assisted me in the discharge of my duties, I extend my sincere thanks.

Respectfully submitted,

EDWARD S. HOSMER,
Chief of Fire Department.

FIRE DEPARTMENT

JANUARY 1, 1910

CHIEF ENGINEER

EDWARD S. HOSMER { Office, Palmer St. Engine House
 { Residence, 202 Westford Street

FIRST ASSISTANT ENGINEER

JAMES F. NORTON - - Residence, 22 Ames Street

ASSISTANT ENGINEERS

EDWARD MELOY - - - - 30 Fort Hill Avenue
CHARLES STACKPOLE - - - 105 Liberty Street
CHAS. E. ALWAY - - - - 16 West Bowers Street

CHIEF'S DRIVER

H. B. SANDERS - - - Palmer St. Engine House

FIRST ASSISTANT ENGINEER'S DRIVER

T. H. WELCH - - - - Hose 7 Hose House

TELEGRAPH OPERATOR

HENRY C. FERNALD - - Palmer St. Engine House

COMMITTEE ON FIRE DEPARTMENT

Aldermen Adams and Turner
Councilmen Achin, Killpartrick and Flanagan

ENGINE COMPANY No. 1

TWELVE MEMBERS

HOUSE ON GORHAM STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
15	Captain	C. D. Foley	54	Permanent	June, 1879	Engine House
11	Lieutenant	T. W. Collins	52	Permanent	April, 1884	Engine House
1	Clerk	G. W. Lovett	60	Driver, Wagon	Dec., 1875	Engine House
119	Engineer	J. W. Jantzen	56	Permanent	Feb., 1884	Engine House
18	Driver	J. J. Lowney	42	Driver, Engine	July, 1892	Engine House
12	Hoseman	R. Oatley	49	Permanent	Dec., 1893	Engine House
13	Hoseman	J. O'Hare	45	Permanent	Jan., 1893	Engine House
14	Hoseman	P. Curtin	56	Moulder	May, 1874	43 Abbott St.
17	Hoseman	T. McNamara	66	Machinist	April, 1884	Engine House
10	Hoseman	W. H. Kirkpatrick	43	Machinist	Jan., 1897	Engine House
16	Hoseman	J. H. Gray	43	Contractor	Feb., 1899	23 Ellsworth St.
19	Hoseman	P. Sheehan	41	Baker	Dec., 1897	11 Lyon St.

ENGINE COMPANY No. 2

TWELVE MEMBERS

HOUSE ON BRANCH STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
2	Captain	H. Boynton	58	Permanent	April, 1869	Engine House
21	Lieutenant	F. B. Akers	51	Permanent	Jan., 1878	Engine House
20	Clerk	W. H. Oke	44	Driver, Wagon	May, 1891	Engine House
29	Engineer	H. R. Morrison	50	Permanent	July, 1882	Engine House
90	Driver	F. Boynton	47	Driver, Engine	Dec., 1882	Engine House
24	Asst. Engineer	A. F. Prescott	32	Permanent	June, 1899	Engine House
22	Hoseman	C. F. Stackpole	24	Permanent	Jan., 1905	Engine House
23	Hoseman	F. H. Harris	33	Tinsmith	Aug., 1899	Engine House
27	Hoseman	David Laferriere	26	Clerk	Dec., 1909	774 Merrimack St
28	Hoseman	John J. Flynn	27	Clerk	Dec., 1909	33 Smith St.
26	Hoseman	J. F. Ambrose	30	Machinist	Aug., 1908	176 Adams St.
25	Hoseman	Geo. A. Crawford	23	Machinist	Dec., 1909	Engine House

ENGINE COMPANY No. 3

TWELVE MEMBERS

HOUSE ON PALMER STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
30	Captain	F. Hoyt	60	Permanent	Aug., 1873	Engine House
31	Lieutenant	O. A. Knapp	46	Permanent	July, 1889	Engine House
3	Clerk	F. E. Turner	46	Driver, Wagon	July, 1892	Engine House
33	Engineer	M. I. Collins	55	Engineer	April, 1888	Engine House
133	Driver	B. C. Reed	55	Driver, Engine	Aug., 1885	Engine House
38	Hoseman	G. T. Halstead	59	Permanent	Nov., 1883	Engine House
36	Asst. Engineer	A. E. Dearth	49	Permanent	June, 1891	Engine House
35	Hoseman	B. F. Freeman	65	Permanent	July, 1892	Engine House
37	Hoseman	F. E. Roark	60		July, 1875	69 Fifth St.
34	Hoseman	F. A. Farrell	43	Plumber	April, 1898	Market St.
39	Hoseman	A. Dorr	34	Master Mechanic	Feb., 1898	72 Jenness St.
32	Hoseman	A. B. Strout	31	Clerk	June, 1905	91 Fourth St.

ENGINE COMPANY No. 4

TWELVE MEMBERS

HOUSE ON HIGH STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
4	Captain	J. E. Burns	49	Permanent	Feb., 1882	Engine House
42	Lieutenant	J. E. Sullivan	58	Permanent	May, 1883	Engine House
47	Clerk	J. M. G. Burns	36	Driver, Wagon	July, 1895	Engine House
41	Driver	J. J. Harrington	60	Driver, Engine	Nov., 1869	Engine House
134	Engineer	J. D. Ismond	42	Permanent	July, 1892	Engine House
43	Hoseman	W. F. Dolan	37	Permanent	Nov., 1894	Engine House
45	Hoseman	P. J. Mooney	35	Permanent	Jan., 1902	Engine House
48	Asst. Engineer	M. E. Eagan	44	Steam Engineer	Dec., 1898	113 Pleasant St.
44	Hoseman	M. Connor	57	Plasterer	Mar., 1883	73 Pleasant St.
46	Hoseman	J. H. Tracey	37	Mattress Maker	Sept., 1897	281 Concord St.
49	Hoseman	Thomas Bryan	40	Leather Worker	July, 1899	24 Concord St.
40	Hoseman	P. J. Finnerty	38	Iron Smelter	July, 1903	32 Lawrence St.

ENGINE COMPANY No. 5

TWELVE MEMBERS

HOUSE ON MAMMOTH ROAD, PAWTUCKETVILLE

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
152	Captain	E. Bartlett	62	Permanent	May, 1883	Engine House
52	Lieutenant	G. F. Flint	48	Permanent	Aug., 1892	Engine House
5	Clerk	R. W. Broadbent	42	Driver, Wagon	Nov., 1891	Engine House
51	Engineer	C. L. Brown	55	Permanent	Jan., 1893	Engine House
50	Driver	S. S. Page	61	Driver, Engine	May, 1888	Engine House
56	Hoseman	G. A. Campbell	36	Permanent	Oct., 1899	Engine House
54	Hoseman	J. J. McManmon	38	Permanent	Jan., 1893	Engine House
53	Asst. Engineer	J. P. Fowler	60	Carpenter	May, 1883	256 Mammoth Rd.
58	Hoseman	J. J. Frazier	53	Moulder	June, 1892	54 Starbird St.
55	Hoseman	E. F. Farrell	34	Plumber	Dec., 1898	12 Third Ave.
59	Hoseman	J. C. O'Neil	37	Laborer	Dec., 1904	20 Sixth Ave.
57	Hoseman	R. J. Hayes	31	Teamster	Jan., 1905	242 Mammoth Rd.

ENGINE COMPANY No. 6

TWELVE MEMBERS

HOUSE ON FLETCHER STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
68	Captain	D. J. Hurley	58	Permanent	May, 1879	Engine House
61	Lieutenant	T. H. Rogers	58	Permanent	Dec., 1888	Engine House
6	Clerk	J. A. Fletcher	53	Driver, Wagon	May, 1880	Engine House
66	Hoseman	R. E. Burns	44	Permanent	Dec., 1888	Engine House
62	Engineer	F. G. Collins	52	Permanent	Dec., 1889	Engine House
69	Asst. Engineer	E. Perham	49	Permanent	Feb., 1890	Engine House
60	Driver	S. R. Pendexter	57	Driver, Engine	June, 1892	Engine House
64	Hoseman	E. Saunders	44	Baker	Feb., 1890	Mt. Wash'gton St.
65	Hoseman	J. J. Murray	57	Cabinet Maker	July, 1885	Arlington St.
67	Hoseman	E. A. Walsh	37	Plumber	June, 1895	Mt. Vernon St.
79	Hoseman	T. F. Maguire	43	Clerk	July, 1892	Butterfield St.
63	Hoseman	Ed. P. Cunningham	27	Shoe Cutter	Dec., 1909	109 Mammoth Rd.

HOSE COMPANY No. 7

EIGHT MEMBERS

HOUSE ON CENTRAL STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
72	Captain	E. Cunningham	62	Steam Fitter	Aug., 1866	18 Ames St.
70	Lieutenant	J. Sullivan	44	Permanent	July, 1892	Hose House
71	Hoseman	P. Laughlin	55	Permanent	Aug., 1888	Hose House
7	Clerk	J. Emerson	47	Driver, Wagon	July, 1889	Hose House
74	Hoseman	R. W. V. Sloan	23	Permanent	May, 1908	Hose House
77	Hoseman	J. J. Donohoe	50	Permanent	Jan., 1893	Hose House
73	Hoseman	P. Emerson	51	Carpenter	Feb., 1883	102 Crosby St.
76	Hoseman	J. Moore	36	Electrician	Feb., 1898	10 Auburn St.

HOSE COMPANY No. 8

NINE MEMBERS

HOUSE ON MERRIMACK STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
86	Captain	D. H. Crowley	49	Permanent	Feb., 1890	Hose House
150	Lieutenant	B. J. Dunn	47	Permanent	Feb., 1890	Hose House
87	Hoseman	W. F. Tighe	47	Permanent	Sept., 1892	Hose House
88	Clerk	W. M. Barrett	32	Driver, Wagon	Aug., 1898	Hose House
89	Hoseman	C. Collins	39	Permanent	Aug., 1894	Hose House
136	Hoseman	J. F. Convery	56	Carpenter	Jan., 1893	36 Lagrange St.
153	Hoseman	T. F. Welch	54	Cabinet Maker	June, 1894	446 Fletcher St.
154	Hoseman	H. Carpentier	33	Shoe Cutter	Dec., 1909	67 West Mead Rd.
85	Hoseman	J. J. McCarthy	40	Plasterer	Jan., 1905	216 Mt. Hope St.

HOSE COMPANY No. 9

EIGHT MEMBERS

HOUSE ON LINCOLN STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
91	Captain	J. Baxter	51	Permanent	July, 1883	Hose House
92	Lieutenant	G. H. Chapman	54	Permanent	May, 1885	Hose House
93	Clerk	C. A. Rock	51	Driver, Wagon	May, 1893	Hose House
95	Hoseman	D. F. Courroy	37	Permanent	Jan., 1894	Hose House
98	Hoseman	P. F. Mooney	36	Permanent	Mar., 1905	Hose House
94	Hoseman	F. A. Kappler	52	Carpenter	May, 1893	291 Lincoln St.
96	Hoseman	W. H. Bamford	31	Plasterer	Jan., 1904	56 Main St.
97	Hoseman	C. L. Crowley	27	Moulder	May, 1905	436 Lincoln St.

HOSE COMPANY No. 10

NINE MEMBERS

HOUSE ON FOURTH STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
160	Captain	C. F. Hemenway	60	Permanent	Sept., 1875	Hose House
162	Lieutenant	J. McCafferty	47	Permanent	Nov., 1887	Hose House
161	Clerk	A. E. Kidder	54	Driver, Wagon	Oct., 1887	Hose House
164	Hoseman	E. S. Barnes	40	Permanent	Dec., 1894	Hose House
167	Hoseman	C. H. Cogswell	33	Permanent	June, 1905	Hose House
166	Hoseman	D. Common	60	Carpenter	Mar., 1896	109 Beach St.
168	Hoseman	F. D. Mansur	51	Carpenter	Oct., 1889	21 Third St.
165	Hoseman	C. F. Hoisington	53	Tinsmith	Aug., 1897	68 Thirteenth St.
163	Hoseman	B. M. Simpson	40	Stableman	May, 1901	Hose House

HOSE COMPANY No. 11

NINE MEMBERS

HOUSE ON LAWRENCE STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
200	Captain	W. A. Dolan	47	Permanent	Jan., 1888	Hose House
201	Lieutenant	E. Jennings	52	Permanent	Jan., 1893	Hose House
203	Clerk	J. D. Finnegan	44	Driver, Wagon	Jan., 1893	Hose House
205	Hoseman	T. J. Dwyer	46	Permanent	Jan., 1893	Hose House
208	Hoseman	W. J. Sullivan	47	Shuttle Maker	Nov., 1896	466 Lawrence St.
204	Hoseman	P. B. Gray	38	Carpenter	June, 1901	71 Whipple St.
202	Hoseman	J. E. Burns	41	Expert	Sept., 1897	14 Carter St.
207	Hoseman	M. F. McNally	35	Painter	Sept., 1909	57 So. Whipple St.
206	Hoseman	F. H. Crosby	41	Plasterer	May, 1900	111 Moore St.

HOSE COMPANY No. 12

EIGHT MEMBERS

HOUSE ON WEST SIXTH STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
220	Captain	H. A. Merrill	48	Permanent	June, 1884	Engine House
221	Lieutenant	C. E. Abare	35	Permanent	Sept., 1897	Engine House
222	Clerk	G. S. Alcott	27	Permanent	June, 1902	Engine House
223	Hoseman	J. D'Amour	40	Permenent	Mar., 1903	Engine House
224	Hoseman	J. Bernier	40	Permanent	May, 1900	Engine House
225	Hoseman	W. F. Eagan	34	Carpenter	Dec., 1909	69 Lilley Ave.
226	Hoseman	J. E. Fontaine	27	Laundryman	Dec., 1909	125 Gershom Ave.
227	Hoseman	E. Landry	34	Clerk	Dec., 1909	103 Ennell St.

TRUCK COMPANY No. 1

TEN MEMBERS

HOUSE ON LAWRENCE STREET

Badge	Rank	Name	Age	Occupation	Joined	Dept.	Residence
209	Captain	T. Brown	52	Permanent	May, 1890		Truck House
210	Lieutenant	T. Dwyer	46	Permanent	Sept., 1888		Truck House
211	Clerk	W. J. Heelon	47	Driver, Truck	Mar., 1896		Truck House
213	Ladderman	J. F. McGuinness	47	Permanent	Jan., 1893		Truck House
216	Ladderman	R. F. Maxwell	32	Fish Dealer	June, 1902		16 Carter Place
212	Ladderman	F. J. Dunn	27	Machinist	June, 1909		930 Gorham St.
218	Ladderman	C. J. Meehan	46	Mattress Maker	Aug., 1894		Truck House
215	Ladderman	J. T. Doyle	36	Clerk	Jan., 1895		320 Thorndike St.
217	Ladderman	J. H. Lannon	39	Machinist	Jan., 1895		12 Agawam St.
214	Ladderman	M. J. O'Connor	45	Clerk	Jan., 1900		900 Gorham St.

TRUCK COMPANY No. 2, WITH CHEMICAL ENGINE ATTACHED

TWELVE MEMBERS

HOUSE ON WESTFORD STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
121	Captain	D. W. Hilliard	58	Permanent	Aug., 1872	Truck House
120	Lieutenant	G. W. Alcott	56	Permanent	Oct., 1877	Truck House
130	Clerk	G. A. Dickey	60	Driver, Chemical	Nov., 1888	Truck House
132	Ladderman	E. E. Smith	55	Permanent	Jan., 1890	Truck House
131	Ladderman	H. S. Gardner	57	Permanent	May, 1874	Truck House
123	Ladderman	W. S. Holt	34	Permanent	April, 1898	Truck House
127	Ladderman	H. W. Hilliard	28	Permanent	Jan., 1905	Truck House
126	Driver	Q. A. Foster	51	Driver, Truck	June, 1889	Truck House
128	Ladderman	R. B. Joslyn	36	Clerk	April, 1898	94 Lane St.
122	Ladderman	E. Kerwin	60	Steam Fitter	May, 1871	38 Royal St.
129	Ladderman	F. E. Alcott	22	Steam Fitter	Dec., 1909	698 School St.
125	Ladderman	H. A. Tanner	25	Machinist	June, 1908	33 Dover St.

TRUCK COMPANY No. 3, WITH CHEMICAL ENGINE ATTACHED

THIRTEEN MEMBERS

HOUSE ON PALMER STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
110	Captain	F. E. Fuller	60	Permanent	May, 1869	Truck House
141	1st Lieutenant	H. F. Harris	57	Permanent	Nov., 1888	Truck House
143	2d Lieutenant	E. H. Dearth	46	Permanent	Jan., 1893	Truck House
112	Clerk	F. O. J. Townsend	55	Driver, Truck	May, 1886	Truck House
140	Ladderman	W. T. Foss	48	Permanent	April, 1892	Truck House
113	Ladderman	F. W. Simons	58	Permanent	Sept., 1872	Truck House
111	Ladderman	R. Carland	47	Permanent	Oct., 1893	Truck House
117	Ladderman	T. F. Saunders	39	Permanent	Sept., 1895	Truck House
118	Ladderman	J. A. Shea	36	Permanent	Dec., 1899	Truck House
116	Driver	W. P. Maker	44	Driver, Chemical	Sept., 1888	Truck House
114	Ladderman	W. N. Flagg	63	Carpenter	Feb., 1881	75 Whitney Ave.
142	Ladderman	M. W. Wright	38	Mason	Jan., 1905	60 Sixth St.
115	Ladderman	W. O. Lussier	41	Blacksmith	April, 1900	6 Salem St.

TRUCK COMPANY No. 4

TEN MEMBERS

HOUSE ON WEST SIXTH STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
100	Captain	J. F. McKissock	57	Permanent	July, 1899	Truck House
101	Lieutenant	J. W. Adams	59	Permanent	Aug., 1874	Truck House
102	Clerk	G. E. Schoefield	43	Driver, Truck	July, 1894	Truck House
103	Ladderman	N. Bishop	72	Permanent	July, 1855	Truck House
105	Ladderman	T. F. Conway	41	Permanent	July, 1891	Truck House
106	Ladderman	P. H. O'Laughlin	48	Permanent	July, 1893	Truck House
104	Ladderman	P. F. Mahoney	30	Permanent	Aug., 1908	Truck House
107	Ladderman	E. Lepine	56	Roll Coverer	Nov., 1894	593 Bridge St.
108	Ladderman	H. T. Mangan	40	Caterer	Aug., 1897	20 Hildreth St.
109	Ladderman	C. F. Cronin	29	Oiler	Dec., 1909	140 Avon St.

PROTECTIVE COMPANY No. 1

NINE MEMBERS

HOUSE ON WARREN STREET

Badge	Rank	Name	Age	Occupation	Joined Dept.	Residence
135	Captain	W. H. Halstead	65	Permanent	May, 1864	Protective House
82	Lieutenant	J. W. Halstead	61	Permanent	Jan., 1872	Protective House
8	Clerk	J. J. Rinehardt	37	Driver, Wagon	Dec., 1902	Protective House
83	Patrolman	M. C. Rowell	46	Permanent	April, 1894	Protective House
81	Patrolman	D. W. Russell	56	Permanent	Jan., 1885	Protective House
80	Patrolman	L. P. Reed	30	Permanent		Protective House
84	Patrolman	A. L. Maynard	56	Permanent	Nov., 1884	Protective House
151	Patrolman	C. A. Bugbee	49	Permanent	Nov., 1894	Protective House
78	Patrolman	H. L. Foster	23	Permanent	Mar., 1905	Protective House

FIRE ALARM TELEGRAPH

Location—Engine House, Palmer Street

HENRY C. FERNALD	- - - - -	Operator
TOM McCORMICK	- - - - -	Lineman

Ten-Circuit Automatic Repeater with Storage Battery of 475
Cups.

Miles of Wire	- - - - -	110
Signal Boxes	- - - - -	142
Engineers' Gongs	- - - - -	8
Engine House Gongs	- - - - -	17
Indicators	- - - - -	18
Bell Strikers	- - - - -	12

Gong and Indicator combined at Police Station.

Gong in Pumping Station.

Gong on Merrimack Square.

Gong on Tower's Corner.

Gong at Northern Depot.

Gong corner Bridge and First Streets.

Gong corner Moody and Aiken Streets.

The strikers are located as follows: Palmer Street Engine House, Varnum School House, High Street Church, Court House, No. 1 Engine House, Franklin School House, Pawtucketville Engine House, No. 6 Engine House, Highland School House, Lawrence Street Engine House, Cornell Street School House, West Sixth Street Engine House.

TELEPHONE CIRCUIT

Complete Stations	-	-	-	-	-	-	-	21
Tap Bells (Extra)	-	-	-	-	-	-	-	26
Miles of Wire	-	-	-	-	-	-	-	44
Storage Battery of 125 Cups.								

The value of all property, as near as can be ascertained, in care of the Chief of this Department is \$154,000.

ANNUAL REPORT

OF THE

Superintendent of Street Lights

LOWELL, MASS.

FOR THE

Year Ending December 31,

1909



LOWELL, MASS.
BAKER PRINTING CO.
1910.

REPORT

LOWELL, January 1, 1910

To the Mayor and Board of Aldermen:

GENTLEMEN:—Herein is submitted the Annual Report of the Superintendent of Street Lights for the year ending December 31, 1909.

The lighting of the streets is all done by contract with a rebate for all lights not burning the designated time. In addition to the police, three permanent men from the fire department are detailed to look after all lights and see that they are kept in good order and giving the amount of light the city pays for.

The Board of Aldermen ordered the past year the location of forty-four (44) gas, two (2) incandescent, and three (3) arc lights. At present there are thirteen hundred and seventy-six (1376) gas, five hundred and thirty-three (533) incandescent, and five-hundred and fifty-three (553) arc lights, in addition there are seventeen (17) gas lights owned by the different Corporations, the City paying for the gas, also there are eight (8) arc lights on Fort Hill

Park which burn four or five months each year. The gas lights are burning under a contract of five years from October 13, 1905, with the Lowell Gas Light Co., for \$22.75 each light per year, to burn all and every night. September 1, 1906, a new contract was made with the Lowell Electric Light Corp. for arc and incandescent lights, the price of the arc lights to be \$100 and the incandescent \$22.50 per year, to burn all and every night.

The forty-four (44) new gas lights were located as follows: Church, Perry, South, Howard, Avon, Shaffer, Clitheroe, Merrill Ave., Ennell, Lowell, Marginal, Cheney Place, Short, Wellington Square, Eighteenth, Hampton Ave., Richmond, Cheever, Ina, Foster, Davenport Terrace, Chelmsford, Upham, Post Office Ave., Morrill School Yard, Georgia Ave., Edson, Grove, North Franklin Court Broadway, Barrington, Haynes Ave., Wilder, Watson Ave., one each. Commonwealth Ave., Dracut, and Brookside Streets two each. Sprague Ave. four. The three arc lights were located as follows: Middlesex, Cheever, and Lilley Ave. The two incandescents were located on Totman Road.

The following statement will show the appropriation and expenditures for the year 1909.

APPROPRIATION.

Appropriation	\$98,000.00
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EXPENDITURES

Lowell Electric Light Corp.	\$67,029.74
Lowell Gas Light Co., (Streets)	30,503.30
Lowell Gas Light Co., (Public Buildings) .	25.92
Sundries	83.79
Transferred to general treasury	357.25
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Total,	\$98,000.00

The value of all property, as near as can be ascertained in care of the Superintendent of this Department is \$10,000.

Respectfully submitted,
EDWARD S. HOSMER,
Superintendent.

Seventh Annual Report

OF THE BOARD
OF

PARK COMMISSIONERS

OF THE

CITY OF LOWELL

FOR THE

YEAR ENDING DECEMBER 31, 1909



LOWELL, MASS.,
THE LAWLER PRINTING COMPANY
1910

Department of Public Parks

Commissioners' Report
for 1909.

*To His Honor, the Mayor, and the City Council
of the City of Lowell Massachusetts:*

As required by Chapter 28, Section 13 of the Revised Laws of Massachusetts, entitled "Public Parks, Playgrounds and the Public Domain," the Board of Park Commissioners of the City of Lowell have the honor to submit their seventh annual report.

Board of Park Commissioners

1909-1910

*JOHN J. PICKMAN, 1908-1913.

*JOHN E. DRURY, 1907-1912.

*PERCY PARKER, 1906-1911

*THALLES P. HALL, 1905-1910.

*HARVEY B. GREENE, 1909-1914.

* Re-appointed.

OFFICERS

Chairman,

JOHN J. PICKMAN.

Secretary,

JOHN E. DRURY.

General Superintendent

CHARLES A. WHITTET.

Consulting Engineer,

GEORGE BOWERS, City Engineer.

Park Areas and Their Valuation.

The Rogers Fort Hill Park,	34.40 Acres,	\$150,000.
The South Common,	22.48 "	200,000.
The North Common,	11.39 "	100,000.
Tyler Park,	1.81 "	8,000.
Belvidere Park,	1.77 "	20,000.
Mt. Vernon Park,	0.50 "	4,350.
Varnum Park,	0.135 "	6,000.
Monument Square,	0.092 "	15,000.
Penniman Square,	0.051 "	450.
Lincoln Square,	0.016 "	200.
Hovey Square,	0.010 "	50.
Mansur Square,	0.040 "	150.
Water Works Square,	0.047 "	500.
Coburn Square,	0.252 "	1,000.
Hutchinson Square,	0.037 "	150.
Lenox Square,	0.181 "	1,500.
Franklin Square,	0.058 "	1,500.
Princeton Square,	0.028 "	150.
Middlesex Square,	0.034 "	200.
Lincoln Playground,	1.525 "	6,000.
Fayette St. Playground,	0.170 "	2,000.
Varnum Ave., Riverbank,	0.456 "	1,500.
Colonial Ave., Riverbank,	3.50 "	2,000.
Glacial Oval,		100.
City Hall & Memorial Hall Grounds	0.50 "	65,700.
Lincoln School Grounds,	1.02 "	4,445.
Highland School Grounds,	1.24 "	5,392.
Greenhalge School Grounds,	2.30 "	10,000.
Moody School Grounds,	1.18 "	7,684.
Riverside School Grounds,	1.05 "	2,281.
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Total,	86,272 "	\$611,857.

Report of the Park Commission

FOR THE YEAR 1909

The departments of the city would be made more efficient by intelligent foresight in their administration. If it is desirable in the interests of the public that land be acquired and used for parks and playgrounds, and if the city is to increase in population, it is certain that land for park uses should be purchased in anticipation of the growth of the city, when it can be obtained for a reasonable price in localities where it is at present thickly settled, or is likely to be. Some provision should be made to secure tracts of land available for park purposes at reasonable prices by obtaining an option for the purchase thereof, or by the issue of bonds, or in some businesslike way. The city council of the city is vested with the power to furnish the money for the purchase of land for park purposes. The members of city councils come and go. Some of the members are indifferent to the needs of the city or are unfamiliar with them. They remain in office for one or two years, and not infrequently men equally uninformed or indifferent

take their places. There is a lack of continuity in the public service and little opportunity or inclination to plan work for the future or to map out and to adopt a plan of improvements comprehensive in character and designed to cover a term of years. Work that is done outside of maintenance in many of the departments is the result of local pressure and influences and of temporary conditions. Large sums of money are expended annually for alleged improvements; much of the work that is done is of advantage to the public, but it is not a benefit based upon considerations of economy or with reference to a plan. It is of little avail to say that the work should have been done ten years before, or should have been done better, or that land should have been purchased when the need of it was obvious, and when it could have been obtained for a reasonable price. The city council of ten years ago has ceased to be, and remissness of duty cannot be charged up against it now to any advantage; and after all, the fault is largely with the system, or the lack of it, and not with men. If the taxpayers and citizens generally were impressed as individuals with a sense of personal loss or detriment when land for a park, fire house, or school building is not purchased when it can be obtained for a fair price, when there is actual necessity for land for such purposes, or by the lack of system and unity in the laying out and performance of public work, they would exert an influence with their public servants that would compel obedience to their wishes. If parents clearly appreciated that an inefficient teacher in any grade of the public schools resulted in a loss or disadvantage to their children that would in some degree lessen their ability to earn a living, the school committee

would not be slow in dispensing with the services of such inefficient teacher. When the taxpayer shall be keenly alive to the necessity of the adequate protection of his property from fire, and his person from disease by the proper inspection of milk, or the use of other means of safeguard, it cannot be doubted that the means of protection would be speedily supplied. With a personal conviction of the importance and necessity of adequate provision for the protection and preservation of life and property would be conjoined the insistence upon an adequate appropriation of the public money to supply the means of protection. The ruling motive would be selfish, but it would be a selfishness that would result in the general good. The problem of the government of cities will be solved when each citizen fully appreciates for himself and his household the advantage of good government in the city in which he lives.

FORT HILL PARK

Several years ago the Olmsted Brothers, landscape engineers, made a plan and recommendations therewith for the improvement of the tract of land westerly of the entrance to the park, but no work was done in pursuance thereof by reason of the lack of funds until this season. Drains have been laid and catch basins built in this land that has entailed a great deal of expense. A large amount of filling has been put on the land to conform to the lines made by the engineers, and walks have been laid out. The work has been rapidly pushed with the view of completing it the present season. Early next spring shrubbery will be set out and trees planted on this lot.

There has been an urgent demand for a playground in Belvidere. The vacant lots in this part of the city have been sold or built upon and few open spaces are available for ball playing or other sports. Some time ago the city council passed a resolution appropriating one thousand dollars for a playground on Fort Hill Park. The space available for this purpose is at the base of the westerly side of the hill, and to make it available it was necessary that a wall should be built on the westerly boundary line with the view of filling in to a level of the top of the wall. The wall has been built and next season it is expected that the means will be afforded to do the filling in and to set up apparatus and to lay out a baseball diamond. This playground will accommodate the youth of Belvidere and of the region west of the Rogers Street bridge.

ANNE STREET CANAL PARK

This park located in the business section of the city and near the City Hall will be open to the public early next season. It is intended to make it the public garden of the city by the planting of flowering shrubs and plants of colors and variety adapted for a public garden. The city is indebted to Mr. Mills, the Engineer of the Proprietors of the Locks and Canals on Merrimack River for his successful efforts to put the lot in condition to give the public this breathing place. A neat fence has been erected by the city on the wall bordering on the canal, and early next season a hedge will be planted on the easterly line of the park, settees put in and other work done necessary to adapt it for public use and enjoyment.

PLAYGROUNDS

There are at present four playgrounds in the city under the care of the Commission; on the South Common, on the North Common, on Chelmsford Street, and in Little Canada. The first playground equipped with apparatus was on the South Common in the year 1906, and the following year a playground with apparatus was made on the North Common. This season for the first time playgrounds were put under supervision. The work of supervision was limited to the South Common for the reasons that the playground was best fitted with apparatus and is centrally located. The supervisors began work on the first day of July, 1909, and finished work on the twenty-first day of August, 1909. There were four men employed as supervisors: Messrs. Christopher Scaife, George W. Wilton, A. Cranshaw and William J. King. Mr. Wilton had been a supervisor in one of the playgrounds in New York City and had experience elsewhere as a supervisor. The attendance was not large at first, but it grew from day to day so that not unfrequently 300 or 400 boys and girls were in daily attendance engaged in sports of various kinds under the direction of the supervisors. Early in the season young girls in considerable numbers came upon the playground and the attendance was so large that it seemed advisable to arrange games for the girls under some sort of supervision. The president of the Middlesex Women's Club, Mrs. Mary E. Smith, became interested in the work; also many of the teachers in the public schools, with the result that many women gave their services during the season in directing games in which the girls engaged, reading to them or telling stories, and in other ways interesting them.

On the twenty-seventh day of August public exercises were held on the Common under the direction of the supervisors, participated in by a large number of boys and girls. From the experience with supervision this season in this city, it is certain that intelligent supervision of the sports on the playground is advantageous in many ways.

First, there will be a larger attendance of boys and girls.

Second, there is the opportunity for a diversity of sports and a more continued interest.

Third, the opportunity is afforded to add features to the work on the playground combining with play instruction in that which is useful, as sewing, chair plaiting, kindergarten work, and the like.

Fourth, the young children are better guarded from injury, and the use of the apparatus is more fairly divided among them than without supervision. It is not necessary that there should be a large number of persons employed as supervisors, but it is necessary to get good results that the persons employed be skilled in their business, possessed of tact, intelligence, and energy. Poor supervision is useless.

The playground on Chelmsford Street was used chiefly, the present season, whereon to play baseball. The apparatus consists of swings and teters that were kept in constant use. A great many trees have been planted along the border of this park and next season a part of it will be sown with grass seed to lighten up the oasis in the desert of Chelmsford Street.

LITTLE CANADA PARK AND PLAYGROUND

Early in the season a vigorous movement was begun by citizens residing in Little Canada to obtain a park in that part of the city. Public meetings were held at which the subject was discussed and petitions numerously signed, asking that land be acquired for park and playground purposes, were presented to the city council. The petitions were referred to the Park Commission and a public hearing thereon was held in the council chamber that was very largely attended. The Commission made a report to the city council recommending that land forming a part of what is known as the "Dump" be leased from its owner. Thereafter a lease was made to the city of five acres of land to be used for park and playground purposes. A resolution passed the city council providing for a loan of two thousand dollars to adapt the land for park purposes and to furnish the grounds with apparatus. A baseball diamond was laid out, apparatus set up and shelter houses erected. On the twenty-sixth day of August, 1909, there was a public opening of the park.

There is need of a playground in Centralville and in the Highlands, and if the residents of those localities are as energetic in their efforts to obtain playgrounds as were the citizens of Little Canada, there will soon be a park and playground in both of those sections. There are thousands of children who remain in Lowell in the summer, and it is desirable to furnish them with a place to play in and to work in under proper supervision. It is good missionary work to use agencies to keep the hands and minds of the children occupied in innocent sport or useful work in their hours of leisure.

SCHOOL YARDS

Several school yards have been placed under the care of the Commission the present year. Some of these yards are large enough for playground purposes, and apparatus will be set up in one or two of them as an experiment. It is the purpose of the Commission to improve the appearance of the yards by planting trees and shrubbery therein to make the same attractive in appearance, but not to interfere in any way with the use of the grounds to play in, which should be the first consideration in the treatment of school yards. Many of the teachers in the public schools, especially in the schools of the lower grades, have shown a commendable interest in the work of keeping the school yards attractive and in interesting their pupils in the study of trees, flowers and plants. The school yards of the Lincoln, Greenhalge, Highland, Moody, and Riverside Schools have been placed in the care of the Commission.

BROWN TAIL MOTHS AND OTHER TREE PESTS

The work of fighting the brown tail moth pest continues, but fortunately there are indications of a lessening of the evil from this pest, but unfortunately the gypsy moth, the elm beetle, maple tree louse and the Tussock moth have appeared in this city and are a menace to the tree, even more destructive than is the brown tail moth. It is necessary to use all of the agencies and means that can be made use of to exterminate these pests. The work is very discouraging and unsatisfactory to the Com-

mission, but it is work that must be done. In the end nature will work out a cure, but man must do a little to help out the efforts of nature. There have been destroyed the current year more than four tons of brown tail moth nests, and 30,000 nests of gypsy moths.

The amount of the appropriation for the removal of nests of moths, etc., was \$6,200.

Amount expended was \$6,200.

Amount paid by property owners as assessments for the removal of tree pests \$3,435.05.

TREES

The council was generous in its appropriation for trees this year and as a result the record of work done in the removal and trimming of trees is better than ever before. The city has its streets well lined with trees, especially in the residential section, and it is highly important to keep them in good condition. It is the duty of the owner of trees to protect them by the use of guards.

75 dead or decayed trees were removed, and 425 trees were trimmed.

PUBLIC BATHS

Every playground should have shower baths. A shower bath was put into the basement of the Favor Street school-house in the month of June. The patronage was so large that it became necessary to limit the hours when the bath could be used. The boys tumbled over each other for a chance to get under the shower, and the janitor of the school was nearly mobbed in his efforts to regulate

the use of the bath. It is certain that the use of the basement of this schoolhouse for a bath was appreciated by a large number of the boys of the city, and it is recommended that additional shower baths be put in the Favor Street schoolhouse, as it is located near the athletic grounds on the South Common, and in some other schoolhouse basements where the conditions are favorable to try the experiment of the use of baths in school premises. In several of the large cities of the Country, notably in Detroit, the experiment has been tried with signal success.

BILLBOARDS

The time is ripe to deal in a practical way with billboards. It is a disgrace to the city to permit thousands of feet of walls and of buildings to be covered with advertisements offensive to every canon of good taste. Beef, beer and the ballet should be advertised in some less conspicuous way than on buildings or boards. A corporation or individual has no more right to offend the sense of smell by putting a pig sty in his front yard than to permit his house or his fence to offend the eye by cheap advertisements or base pictorial illustrations. Nearly every city of any size in the country has an ordinance regulating the use of boards for advertising purposes. The city council can do a good work by the passage of such an ordinance of a conservative kind that will be fair to all interests concerned.

CONCLUSION

The time will come when the city will be greatly im-

proved in its appearance. The location of the city, the rivers and canals flowing through it, the number and variety of the trees in the public streets and on private grounds, afford natural advantages that will be utilized. There is a demand of the citizens for better streets, the removal of billboards and offensive signs, for more playgrounds and places of legitimate recreation. Lowell is a city of schools, public and private, and has thereby a heaven that will work for civic beauty and for the "things that are more excellent." The men and women of public spirit and intelligence are making their influence powerfully felt to make the city a good place to live in as it is a good place to earn a living in.

The city council of the city is providing more generously the means to make the parks more attractive and the playgrounds better equipped for use. The public library and its adjuncts are among the best in the country, and the trustees of the public cemeteries are doing the best of work in that department. The city council would render a public service by the appointment of a special committee to make a report on tracts of land bordering on the rivers and canals that are available for park purposes to act in conjunction with this Commission in utilizing for use the more desirable spaces.

A recent event in this city has made it clear that there is an earnest and wide-spread demand for an improvement in civic life and conditions.

The superintendent has been intelligent and energetic in the discharge of his duties. The public and the Commission are under obligations to his Honor the Mayor and to the city engineer and his assistants for their earnest co-operation and intelligent efforts in the maintenance and

improvement of the parks and playgrounds of the city.

The amount of the appropriation for parks for the current year was fifteen thousand dollars (\$15,000).

The amount expended was fifteen thousand dollars (\$15,000).

The amount of the appropriation for playgrounds was fifteen hundred dollars (\$1,500).

The amount expended was fifteen hundred dollars (\$1,500).

Respectfully submitted,

JOHN J. PICKMAN,
JOHN E. DRURY,
PERCY PARKER,
THALLES P. HALL,
HARVEY B. GREENE.

Financial Report

Lowell, Mass., December 31, 1909.

TO HIS HONOR THE MAYOR AND THE CITY COUNCIL OF THE
CITY OF LOWELL, MASSACHUSETTS:

GENTLEMEN:—

The Board of Park Commissioners has the honor to submit herewith the Seventh Annual Report of the Park Department of the city for the fiscal year ending December 31, 1909. In presenting to you this report we have given a statement of the receipts and expenditures for the fiscal year, the financial condition of the several appropriations, the Superintendent's report to this department of the work and labor done in the Parks and Commons of this city.

Appropriation for Labor	\$11,000 00
Receipts for Labor	2 77
Total Appropriation for Labor.....	<u>\$11,002 77</u>
Expended for Labor.....	\$10,002 72
Transferred to Other Expenses ...	1,000 00
	<u>\$11,002 72</u>
	05
Appropriation for Other Expenses	\$4,000 00
Received from Care of Trees.....	46 00
Transfer from Labor to Other Expenses.....	1,000 00
Total for Other Expenses.....	<u>\$5,046 00</u>
Expended for Other Expenses.....	5,045 78
Balance.....	<u>\$0 22</u>

We received from the rental of lots on the South Common on July 4th, the sum of \$1,084.00 which was paid into the General Treasury Fund of the City.

MAINTENANCE

NAME	MAINTENANCE		IMPROVEMENT		TOTAL
	LABOR	MATERIAL	LABOR	MATERIAL	
North Common	\$ 672 54	\$ 50 57	\$ 4 31	\$ 31 80	\$ 759 22
South Common	911 02	46 37		106 92	1064 31
Fort Hill Park	2272 30	402 11	3575 77	1667 51	7917 69
Belvidere Park	115 66	35 63			151 29
Tyler Park	133 79	22 84			156 63
Mt. Vernon Park	45 21	10 68			55 89
Monument Square	34 23	37 27	16 70	21 12	109 32
City Hall and Memorial Building	125 34	28 78			154 12
Lincoln Playground	16 27		112 97	27 00	156 24
Hovey Square	4 63	4 87			9 50
Mansur Square	5 94	12 92			18 86
Coburn Square			2 35		2 35
Lenox Square	16 53		57 11	54 56	128 20
Princeton Square	10 28		7 70	18 63	36 61
Middlesex Square	6 02		17 24	32 46	55 72
Fayette Street Playground	6 56				6 56
Varnum Avenue River Bank	13 35	5 00			18 35
Colonial Avenue River Bank	29 02	8 69			37 71
Glacial Rock				39 60	39 60
Water Works Square	6 52	52	29 21	38 99	75 24
Penniman Square	8 02	12 '94			20 96
Varnum Park	10 59	22 33	10 69	5 90	49 51
Lincoln Square	1 15		89 79	266 00	356 94
Stable	106 94	1611 90	19 30	2 20	1740 34
Carpenter Shop	163 01	73 74			236 75
Office Expenses	1344 66	345 93			1690 59
	<u>\$6059 58</u>	<u>\$2733 09</u>	<u>\$3943 14</u>	<u>\$2312 69</u>	<u>\$15048 50</u>

BALANCE SHEET, DECEMBER 31, 1909

DR.		CR.
North Common...	\$ 759 22	Appropriations...\$15,000 00
South Common....	1,064 31	Receipts..... 48 77
Fort Hill Park....	7,917 69	
Belvidere Park....	151 29	
Tyler Park.....	156 63	
Mt. Vernon Park.	55 89	
Monument Square	109 32	
City Hall and Me- morial Building .	154 12	
Lincoln Play- ground	156 24	
Hovey Square	9 50	
Mansur Square ...	18 86	
Coburn Square ...	2 35	
Lenox Square.....	128 20	
Princeton Square.	36 61	
Middlesex Square.	55 72	
Fayette St. Play- ground	6 56	
Varnum Avenue Riverbank	18 35	
Colonial Avenue Riverbank	37 71	
Glacial Rock.....	39 60	
Water Works Sq..	75 24	
Penniman Square.	20 96	
Varnum Park	49 51	
Lincoln Square ...	356 94	
Stable	1,740 34	
Carpenter Shop ...	236 75	
Office Expenses ..	1690 59	
	<hr/>	
	\$15,048 50	
Balance,	27	
	<hr/>	
	\$15,048 77	
		<hr/>
		\$15,048 77

TO WHOM AND FOR WHAT MONEY WAS PAID OUT DURING THE YEAR.

JANUARY.

To Whom	For What	Amount
Joseph Mullin	oats	\$851 93
John J. Donnelly	shoeing	8 55
Lowell Electric Lt. Corp.	light	2 85
American Express Co.	express	20
Dumas & Co.	binding books	18 50
G. C. Prince & Son	postage stamps and cards	4 26
Suffolk Engraving & Electro- typing Co.	half tone plates	16 42
C. B. Coburn Co.	vaseline	60
Nicholas G. Norcross	insurance	57 60
Donovan Harness Co.	repairs	3 20
Martin L. Davey	book "Tree Doctor"	2 00
C. I. Hood Co.	printing report	103 74
Sampson & Murdock	directory	3 00
Total		<hr/> \$1,072 85

FEBRUARY.

To Whom	For What	Amount
G. C. Prince & Son	postage stamps	\$24 00
C. B. Coburn Co.	sulphur and tallow	1 10
Doubleday, Page & Co.	sub. to "Garden Mag- azine."	2 00
Chas. F. Young & Co.	decorating monument	10 00
N. E. Tel. & Tel. Co.	telephone	10
John J. Donnelly	shoeing	5 65
Auditor's Dept.	pay roll sheets	6 00
Lowell Electric Light Corp.	light	2 15
John C. Bennett	branding iron "Park Dept."	3 00
Baker Printing Co.	printing	6 25
Dumas & Co.	binding reports	19 25
Total		<hr/> \$79 50

MARCH.

To Whom	For What	Amount
C. Harry Clapp	horse	\$185 00
Commonwealth of Massachusetts	copy	50
Olmsted Brothers	engineering	52 44
P. Conroy	manure	32 06
Lowell Electric Light Corp.	light	1 97
John J. Donnnelly	shoeing	4 00
J. H. Sparks	hack hire	3 00
Charles E. Gee	sharpening lawn mowers	16 70
N. Y., N. H. & Hartford R. R.	freight	4 12
C. B. Coburn Co.	saltpetre and soap	70
The Pulverized Manure Co.	manure	41 60
J. A. Boucher	shorts	3 30
John C. Bennett	paint	9 00
Donovan Harness Co.	hitch ropes and soap	3 75
Lowell Water Works	water	5 62
Total		<hr/> \$363 76

APRIL

To Whom	For What	Amount
C. B. Coburn Co.	meal, paints and dryer	\$11 30
Bartlett & Dow	hardware	2 68
Smith Premier Typewriter Co.	card platen	5 00
Isaac Hicks & Son	shrubs	45 75
American Express Co.	express	20
Prop. of the Locks and Canals on the Merrimack River	leases	10 00
J. B. Cover & Co.	fertilizer	1 90
Talbot Dyewood & Chemical Co.	salts	25
Lowell Electric Light Corp.	light	1 00

To Whom	For What	Amount
Thompson Hardware Co.	wire netting and baskets	31 39
Charles Wheeler	lettering boulder	38 00
John J. Donnelly	shoeing	9 15
Boston & Maine R. R.	freight	80
Adams Hardware & Paint Co.	bolts	2 45
George C. Wright	shrubs and trees	53 00
Owen E. Brennan	glue and sand paper	30
Dr. W. A. Sherman	professional services	1 50
Pratt & Forrest	lumber	14 18
Donovan Harness Co.	repairs	1 10
Amasa Pratt Co.	lumber	29 36
	Total	<hr/> \$259 31

MAY

To Whom	For What	Amount
Bartlett & Dow	hardware and grass	
	seed	\$30 85
C. B. Coburn Co.	paint, oil and rope	14 73
Thompson Hardware Co.	hardware and wire	
	netting	15 26
J. A. Boucher	shorts	3 50
Pratt & Forrest	lumber	7 39
American Express Co.	express	36
The New England Nurseries, Inc.	shrubs	93 00
Lowell Electric Light Corp.	light	1 00
H. R. Barker Mfg. Co.	changing fountain	
	connections	30 38
John J. Donnelly	shoeing	2 90
Peter Henderson & Co.	lawn boots	8 50
J. B. Cover & Co.	fertilizer	3 80
E. A. Wilson & Co.	lime	2 30
Ellwanger & Barry	shrubs	11 25
Talbot Dyewood & Chemical Co.	sanitary fluid	1 00

To Whom	For What	Amount
John C. Bennett	paint	6 00
Donovan Harness Co.	oil and dressing	9 00
	Total	<u>\$241 22</u>

JUNE

To Whom	For What	Amount
Boston & Maine R. R.	freight	\$10 14
Union Printing Co.	printing	10 00
J. H. Sparks	vet. services	2 00
R. J. Haight	sub. "Park & Cemetery"	1 00
H. Thompson	brooms	3 84
Lowell Electric Light Corp.	light	1 00
N. Y. & Boston Despatch Express Co.	express	65
Daniel T. Sullivan	cement and brick	23 00
John J. Donnelly	shoeing	13 90
Donovan Harness Co.	repairs, new traces and breast plate	14 25
Charles A. Whittet	railway expenses	1 80
Lowell Water Works	repairs to fountains	16 31
	Total	<u>\$97 89</u>

JULY

To Whom	For What	Amount
Whittet & Co.	plants	\$298 13
George E. Hutchins	hose	22 10
Union Iron Foundry	castings	72 96
Dumas & Co.	team checks	50
John C. Bennett	baskets	1 40
W. E. Hatch	grade stakes	4 00
Edward Cawley	sewer pipe	77 35
G. C. Prince & Son, Inc.	postage stamps	4 00
W. A. Mack Co.	watering pots, pail and cover	3 80

To Whom	For What	Amount
Nicholas G. Norcross	insurance	43 20
Charles A. Whittet	railway expenses	1 80
Charles E. Gee	sharpening lawn mowers	3 00
Engineer's Dept.	engineer's services	80 46
E. A. & A. T. Smith	concrete	106 92
Lowell Electric Light Corp.	light	1 00
Donovan Harness Co.	repairs	2 05
John J. Donnelly	shoeing	6 15
Salois & Leith	rubber tires and repairs	24 55
Mahan & Meehan	furnishing and setting	
	curbing	266 00
Rice & Company	grille work	31 80
J. H. Sparks	medicine	1 00
H. R. Barker Mfg. Co.	bibbs	3 50
Talbot Dyewood & Chemical		
Co.	sanitary fluid	2 00
C. B. Coburn Co.	paint and brushes	8 54
Bartlett & Dow	wire screening	35
	Total	<hr/> \$1,066 56

AUGUST

To Whom	For What	Amount
Union Iron Foundry	castings	\$ 50 10
Daniel T. Sullivan	cement	13 18
Edward Cawley	cement and pipe	14 05
Park Land Co.	loam	275 00
C. H. McIntire	loam	5 25
Harry Parker	loam	9 00
Bartlett & Dow	wheelbarrows and rakes	12 84
Talbot Dyewood & Chemical		
Co.	sanitary fluid	75
Charles E. Gee	sharpening lawn	
	mowers	5 00
George M. Foster	bran, straw and hay	73 78
C. H. Hanson & Co., Inc.	horse hire	11 25

To Whom	For What	Amount
Donovan Harness Co.	grease, sponges, polish	
	etc.	8 10
John J. Donnelly	shoeing	9 80
	Total	<hr/> \$488 10

SEPTEMBER

To Whom	For What	Amount
Patrick Cogger	team hire	\$179 50
Edward Cawley	team hire	95 00
N. E. Tel. & Tel. Co.	telephone service	2 23
Bartlett & Dow	grass seed	12 50
J. A. Boucher	shorts	3 30
Fred Jenness	sod	52 20
Harry Parker	manure	19 13
Pratt & Forrest	lumber	23 60
Engineer's Dept.	engineering	12 94
Colvin W. Qua	engraving badges	1 25
Donovan Harness Co.	repairs	6 20
Doubleday, Page & Co.	sub. "Country Life"	6 00
Lowell Water Works	water	3 15
John J. Donnelly	shoeing	6 65
	Total	<hr/> \$423 65

OCTOBER

To Whom	For What	Amount
Morse & Beals	bulbs	\$129 00
N. E. Tel. & Tel. Co.	telephone	3 12
C. M. Holmes	grade stakes	16 00
M. A. Patten	shrubs	66 00
Wm. H. Quigley	manure	39 33
Boston & Maine R. R.	freight	16 22
Bartlett & Dow	hardware	1 98
C. B. Coburn Co.	paint, turpentine	
	and brushes	4 18

To Whom	For What	Amount
C. H. Hanson & Co., Inc.	blankets and team hire	54 00
Donovan Harness Co.	repairs	2 45
John J. Donnelly	shoeing	9 10
Dumas & Co.	printing pay rolls	6 25
George A. Nelson	prints and negatives	8 70
Lowell Electric Light Corp.	light	62
Engineer's Dept.	engineering	19 40
E. F. Hathaway	signs	6 85
George N. Parker	hay	42 90
	Total	<hr/> \$426 10

NOVEMBER

To Whom	For What	Amount
C. H. Hanson & Co., Inc.	teaming	\$219 00
John J. Donnelly	shoeing	10 80
Edward Cawley	teaming and pipe	110 08
Lowell Electric Light Corp.	light	2 61
N. E. Tel. & Tel. Co.	telephone service	3 12
Cheney & Thomson Co.	rake	75
James Whittet	fountain cover	98
Mrs. C. A. Frost	manure	14 88
Donovan Harness Co.	blankets, salve, etc.	19 90
R. A. Paradis	carbon paper	2 40
Bartlett & Dow	mould board and bolts	3 60
Engineer's Dept.	engineer's services	6 47
	Total	<hr/> \$394 58

DECEMBER

To Whom	For What	Amount
The Robertson Co.	cabinet	\$30 75
G. C. Prince & Son, Inc.	pencils	2 00
Fred A. Fox Estate	hay	17 27
Donovan Harness Co.	repairs	2 60
John J. Donnelly	shoeing	8 05

To Whom	For What	Amount
N. E. Tel. & Tel. Co.	telephone	3 12
Bartlett & Dow	tools	19 75
Edward Cawley	coal and lime	15 45
George M. Foster	salt	1 50
T. J. McDonald	straw	12 36
Lowell Electric Light Corp.	light	1 00
C. B. Coburn Co.	witch hazel and dis- infectant	3 45
Gumb Bros.	sharpening picks and drills	10 25
Warren J. Gould	sharpening picks and shoeing	3 30
Adams Hardware & Paint Co.	paint	1 40
Total		<hr/> \$132 25

LABOR AND SALARY PAYROLL FROM JANUARY 1, TO DECEMBER 31, 1909.

January	Pay	roll	No.	1,	2,	3,	4,	5,	\$	308	45
February	"	"	"	6,	7,	8,	9,			325	46
March	"	"	"	10,	11,	12,	13,			286	81
April	"	"	"	14,	15,	16,	17,			593	95
May	"	"	"	18,	19,	20,	21,	22,		1,165	99
June	"	"	"	23,	24,	25,	26,			1,021	80
July	"	"	"	27,	28,	29,	30,	31,		1,133	44
August	"	"	"	32,	33,	34,	35,			887	40
September	"	"	"	36,	37,	38,	39,			954	15
October	"	"	"	40,	41,	42,	43,	44,		874	94
November	"	"	"	45,	46,	47,	48,			806	01
December	"	"	"	49,	50,	51,	52,	53,		1,644	32

\$10,002 72

MONTHLY EXPENDITURES

MATERIAL AND SUPPLIES

January.....	\$1,072	85
February.....	79	50
March.....	363	76
April.....	259	31
May.....	241	22
June.....	97	89
July.....	1,066	56
August.....	488	10
September.....	423	65
October.....	426	10
November.....	394	59
December.....	132	25

\$5,045 78

Respectfully submitted,

JOHN E. DRURY, *Secretary.*

General Superintendent's Report

LOWELL, MASS., DECEMBER 31, 1909.

TO THE PARK COMMISSION.

Gentlemen:—

I have the honor to submit to you my Seventh Annual Report which gives a complete account of the work performed by the Park Department under the direction of your Board during the fiscal year ending December 31, 1909, including a few comments and suggestions which I hope will not be considered inappropriate.

THE ROGERS FORT HILL PARK

The usual care to keep this park up to its accustomed condition has been bestowed upon it the past season. In the early Spring we manured, ploughed and seeded about two acres of ground at the top of the hill. A collection of lilacs has been planted on the left of the main drive leading to the top of the hill. The four large beds of German Iris around the pond have attracted a great deal of attention.

On the westerly side of the entrance to the park we have built twelve catch basins and have completed a system of drainage which we believe will be adequate to carry off the water. Over one-half of the ground has been graded and turfed; the remainder we expect to complete in the early spring.

Along the High Street side of the park we have laid a granite curbing from Rogers Street to Park Avenue; a three-foot grass strip has been laid out along this street between the sidewalk and the curbing.

One of the most urgent needs at this park at the present time is a comfort station and shelter house. I would strongly recommend that some action be taken in this matter. I would also call your attention to the condition of the walks and drives, many of them being in a very bad condition.

SOUTH COMMON

I would recommend that a liberal sprinkling of cracked bone at the rate of about a ton to the acre be applied for the benefit of the trees.

The trees through the common need attention; the dead wood should be pruned out of them and the cavaties filled with cement. I desire to call your attention to the need of a new band stand on this common, as the one now there is in a very unsafe condition. The walk leading from the pond to Thorndike Street has been widened and reconcreted.

I desire to call your attention to the very bad condition of the bottom of the pond, which is unhealthy and unsightly, and that for the public health it should be reconstructed and laid in cement concrete. This pond is a never failing source of enjoyment to thousands of children, and their pleasure would be greatly enhanced if clear, transparent water was maintained.

NORTH COMMON

The chief need at this common is the provision of adequate drainage, the relaying of the tar concrete walks and the proper shaping and surfacing of the ground. I would urge that an appropriation be made for this purpose. Several dead and dangerous trees have been removed.

CITY HALL GROUNDS

It is almost impossible to keep the turf in these grounds in good condition without the constant attention of a policeman. The grounds would look much better with a moderate amount of shrub planting if better police protection can be provided. An iron picket fence should be erected between Memorial Building and City Hall to prevent short cutting. This fence should be partially screened by means of ornamental shrubbery and vines.

ANNE STREET PARK

The land along the canal on Anne Street was once a part of the Joseph Fletcher Farm in Chelmsford; it was sold to a Thomas M. Clark, of Newburyport on November 21st, 1821; it was sold by the said Thomas M. Clark to Kirk Boott, John W. Boott, Nathan Appleton, Patrick T. Jackson of Boston and Paul Moody of Waltham, December 13th, 1821. Said Kirk Boott, John W. Boott, Nathan Appleton, Patrick T. Jackson of Boston and Paul Moody of Waltham sold it to the Merrimack Manufacturing Company, May 21st, 1822; the Merrimack Manufacturing Company sold it to The Proprietors of the Locks and Canals on Merrimack River January 2, 1826. On March 20th, 1844 the Proprietors of the Locks and Canals on Merrimack River sold it to Benjamin F. French and George H. Carleton, both of Lowell, in trust, that said French and Carleton, their successors and substitutes were to keep said lot of land as ornamental ground forever, the same being dedicated and set apart by the grantors for the purpose of beautifying and ventilating the city.

On May 10th, 1909, the Proprietors of the Locks and Canals on Merrimack River appointed as successors to the said French and Carleton, Hon. John J. Pickman, Chairman of the Park Commission and Hon. George H. Brown, Mayor of the city, under the following Act of the Legislature:

AN ACT

To authorize the City of Lowell to appropriate money to be expended by Trustees in maintaining and beautifying certain land in said city.

Be it enacted by the Senate and House of Representatives in General Court assembled and by the authority of the same, as follows:—

SECTION 1. The City of Lowell is hereby authorized to permit the Mayors of said city in succession and the Chairman of the Park Commission in succession to accept the position of trustees under a deed of trust made March 20th, 1844, by the Proprietors of the Locks and Canals on Merrimack River of a lot of land situated on the west side of Anne Street in Lowell according to which deed said lot was to be kept "as ornamental ground forever," the same being "dedicated and set apart by the grantors for the purpose of beautifying and ventilating the city."

SECT. 2. The City of Lowell may make appropriations of money to be used by said trustees in fencing and beautifying said land or otherwise in carrying out the provisions of said trust.

SECT. 3. This Act shall take effect upon its passage.

Following the passage of this Act the City Council appropriated the sum of \$1500.00. The Locks and Canals began work at once in raising the wall bordering the canal a height of over two feet, and a distance of over 800 feet. It was necessary to build a fence on this wall, and a fence of a substantial character has been built by the Enterprise Foundry and Fence Co., of Indianapolis, Ind. This park will be completed early next Spring if sufficient funds are provided.

LINCOLN SQUARE

On May 13th, 1909, a contract for a neat granite curb to be furnished and erected around this square was awarded to Meehan & Mahan, with the stipulation that the curbing should be in place for Memorial Day. The curbing was set and the lot completed on May 28th.

On March 26th, 1908 the school children of Lowell were asked to raise \$2,000.00 to erect a memorial to the memory of Abraham Lincoln, the great liberator of the slaves and one of the Nation's martyrs. The plan was to place it in this square and to dedicate it February 12th, 1909, the centennial anniversary of his birth; but the original plan of the committee could not be carried out and the Monument was unveiled on Memorial Day, May 30th. The unveiling took place in the afternoon and thousands of people lined the streets on all sides to witness the event. The G. A. R., the local companies of the Massachusetts Volunteer Militia, the Spanish War Veterans and the High School Regiment with their bands marched to the square and formed a solid guard around the stone coping surrounding the raised grass plot in the centre of which stands the monument.

After the military companies had formed in their respective places Mr. Harvey B. Greene, chairman of the Board of Trade Committee that was the first mover in the enterprise, opened the exercises with a few words, after which Superintendent A. K. Whitcomb of the public schools presented the monument to the city on behalf of the children of the city; the monument was accepted for the city by the Mayor, George H. Brown in a few well chosen words. The band played "The Star Spangled Banner" and the exercises came to a close.

The shaft is of pink Westerly granite, eight feet high, and five feet at the base, bearing upon one side a bronze

bas-relief of Lincoln, the dates 1909-1865; also the inscription, February 12, 1909, April 15, 1865.

On the other side the inscription is as follows:

ERECTED
BY
THE SCHOOL CHILDREN
OF LOWELL
February 12, 1909.

“With malice towards none
With charity for all,
With firmness in the right
As God gives us to see the right
Let us strive on to finish
The work we are in.”

MONUMENT SQUARE

This plot of ground has been regraded and sown with grass seed, and a sanitary drinking fountain installed at the junction of Merrimack and Moody Streets.

A memorial tablet of bronze has been placed upon the Moody Street side of the monument to the memory of Charles A. Taylor, who, with Ladd and Whitney was killed while the Sixth Regiment was on its march through the streets of Baltimore to the defence of the Nation in 1861.

The tablet bears the following inscription:

CHARLES A. TAYLOR,
Co. D., 6TH M. V. M.
THE FIRST TO FALL IN DEFENCE OF THE UNION
BALTIMORE, APRIL 19, 1861.

“Nothing is here for tears, nothing to wail
Or knock the breast; no weakness, no contempt,
Dispraise or blame; nothing but well and fair;
And what may quiet us in a death so noble.”

The dedication exercises were held April 19th, 1909, and were attended by Gen. E. F. Jones, who commanded the Regiment in its famous march through Baltimore.

BELVIDERE PARK

The grass on this park is completely run out and I would recommend that it be regraded, manured and re-sown.

TYLER PARK

The general character of this park is such that it is very much in need of a border plantation of shrubbery, with a few groups of shrubbery at various points in the interior. The lawns of two-thirds of this park are in fairly neat condition, but on the other third the soil is very thin and the grass poor, which dries up in the summer to such an extent as to injure the appearance of the park. I would recommend that it be manured, ploughed and sown with grass seed. I would also recommend that the circular playground which is of gravel be dispensed with and the fountain which was given the city by Mr. Jacob Rogers be placed in the centre and the remainder of the circle filled in with loam and turfed.

PRINCETON SQUARE

This small square at the junction of the Princeton Boulevard and Baldwin Street has been regraded and the triangle planted with a border of Berberry *Thunbergii*, and the centre of the triangle planted with *Hydrangea Paniculata Grandiflora* donated by the Highland Improvement Society.

MIDDLESEX SQUARE

At the junction of Middlesex and Baldwin Streets has been regraded and planted with *Spiraea Van Houttei* with a border of *Berberry Thunbergii*.

WATER WORKS SQUARE

Has been regraded, resown and a hedge of *Berberry Thunbergii* planted.

LENOX SQUARE

Is a strip of ground at the junction of South Whipple and Lenox Streets which adjoins the Park Department stable; this strip of ground was a solid ledge, which has been removed, the lot filled in, graded and turfed; a plantation of *Ligustrum Amurense* (Amoor Privet) *Hydrangea Paniculata Grandiflora* and *Spiraea Van Houttei* has been made on two sides, which improves the appearance very much.

SMALL PARKS AND SQUARES

All the small parks and squares throughout the city have received some improvements and have been well cared for.

PLAYGROUNDS

The playground movement is receiving much attention at the present time in Massachusetts.

The State of Massachusetts by the action of its voters has given the playground movement the most emphatic endorsement which it has yet received in this country.

That there is need of these open spaces for children, no one can doubt. Careful play supervision, when the child is young, naturally affects its tastes and habits, and gives them a better start for the battle of life.

From a business point of view, there is no community that can afford to ignore the unspoken demands of its children. If the city looks out for the child, the man can look out for himself.

I believe that the establishment of playgrounds in the various localities of our city is one of the greatest blessings that has been conferred upon Lowell by the Park Commissioners, and I would recommend that a general plan for the entire city be formulated which will be adequate to the needs of the children throughout the community. An adequate system of playgrounds will work a transformation in many of the children of this city.

I believe the utilization of the playgrounds of the various schools during the summer months, and the introduction of manual training classes would be a great help to the children. Besides the games and play there should be classes in chair seating, hammock weaving, raffia and worsted work. The cost of placing the necessary equipment and instructors within the reach of five hundred boys would not be over \$1,000.00. Our aim should be to give the boys an industrial interest to take them off the streets and to teach them some of the qualifications of good citizenship. Let all the boys have the same opportunity to develop an interest in some kind of real work, and in that way fit them for the battle of life.

We now have in our city four playgrounds equipped and nearly completed, and another which we hope to complete next year.

The South Common Playground was provided with four instructors for the months of July and August, and an extra set of swings and teeters were added to the equipment already there; the boys were provided with bats and baseballs, volley balls, basket balls, hurdles and quoits. In conjunction with the South Common Playground permis-

sion was secured from the School Board to use the basement of the Favor Street School and a shower bath was installed which was well patronized during the summer by over 1987 boys.

In addition to the apparatus already on the North Common we installed an extra set of swings and teeters, and erected a back stop of iron grille work on the ball field.

At the Chelmsford Street Playground we have a set of swings and a giant stride; we have done considerable grading on these grounds and have planted 36 poplar and 18 maple trees.

For Fort Hill Playground an appropriation of \$1,000.00 was available for a new baseball ground; as there were no grounds suitable for this purpose it was decided to make a place on the westerly side of the hill, and to do so, it was necessary to construct a stone wall five hundred feet in length, five feet in width at the bottom, and three feet in width at the top, varying in height from seven feet at the southern end to fifteen feet at the northern end; this wall has been completed. It is hoped that an appropriation sufficiently large enough to complete the grounds will be made this coming year. When these grounds are completed there is nothing in this part of the country that can compare with them.

Early in the year the Park Commissioners received a monstrous petition from the residents of Little Canada praying that a playground be established in that section of the city; a hearing was given the petitioners, which was attended by one of the largest and most enthusiastic gatherings ever seen at City Hall. A strip of land west of Tucker Street containing about five acres was leased as a tenant at will from the Locks and Canals Company for this purpose. The ground was resurfaced with clean gravel; swings, teeters and sand boxes were installed; canvas coverings were provided for the sand boxes; three shelter houses were built, and over thirty seats provided; a back stop was built on the ball field.

On August 26th, over 4000 people attended the opening

of this playground and all had a jolly good time. There was an excellent program of music by the Municipal Band, an address by the Mayor, George H. Brown, and a list of sports which included a baseball match, a greased pig contest, a fat man's race, a fat woman's race, bag race, shoe race, one hundred yard dash, girl's race and a Marathon race. The success of the event was largely due to the work of Councilmen Vigeant and Achin together with a committee of business men interested in opening up the much needed playground.

SHADE TREES

Shade trees add greatly to the desirability of a community as a place of residence, and their aesthetic value cannot be estimated in dollars and cents, but it is no exaggeration to say that the complete destruction of all the trees and shrubbery would reduce the valuation of our city fifty per cent.

Too much emphasis cannot be laid upon the care of shade trees. They give the best results under cultivation, but unfortunately proper conditions do not always exist in our cities.

The sources of injury are many and serious, and the average citizen realizes only too keenly that they are increasing. There are many dangerous enemies, against the ravages of which the shade tree must be protected, and are of no trifling importance when considered in their relation to the welfare of the public. On every side we can observe numerous evidences of these injuries which, after investigation can be traced to neglect or ignorance on the part of the owners or others.

Trees are seriously damaged by escaping gas which penetrates the surrounding soil; by electricity which is discharged from the wires that come in contact with them. and by telegraph and telephone linemen who may be en-

couraged to disregard the value of a tree in order to run a line of wires with the least possible inconvenience.

During the growing season the leaves of effected trees will reveal the presence of a gas leak in the soil about their roots to a close observer, even when there is no odor of gas in the air. A large leak will not only quickly discolor the leaves, but it will force the sap to flow from wounds of the bark or from the creases of the bark in the large crotches in sufficient volume to keep the main trunk beneath wet for weeks at a time until the tree dies.

One of the results of escaping gas is the presence of a greater or less amount of deadwood throughout the tree each year. The most common indications of gas poisoning are the yellowing and drying of the leaves during early summer and their subsequent early falling away from the trunk, the appearance of fungus growths on the trunk and branches, and the occasional peculiar color and odor of the wood. The number of trees suffering from the effects of gas appears to be increasing. The detection of trees that are suffering from gas in the soil requires the services of one who has had experience with trees thus affected.

Electrical injuries to trees cause the worst complaint. The telephone companies are satisfied when they can cut their way through the trees; the electric companies in addition often burn their way through. It is during wet weather, when parts of a tree are in contact with live wires that the greatest damage to the tree arises from this source of injury. The removal of broken branches and of those injured and killed through contact with electric wires should be supervised to insure the best development of the tree, and this should require the services of one who thoroughly understands the nature of the work in order that cuts shall be properly made, wounds properly dressed and protected, and no unnecessary harm done to the tree.

During the past year a part of our appropriation was devoted to the improvement of street trees in the follow-

ing respects: trimming out of dead wood, dense growth and low-hanging branches, especially of those which interfered with street lighting; the arrest of decay, the removal of injurious guy wires and other obstructions to growth. Several trees which were split by storms have been bolted. There are many trees which require attention because of dead wood and dangerous limbs high up in the large trees in the older part of the city and on prominent thoroughfares. Particular attention was given to the young trees in the newer parts of the city, requiring in some instances severe pruning on account of neglect soon after planting. To some this might seem unnecessary, but a little thought will show that street trees should be trimmed high, so as not to obstruct the light by day or night, and that loaded teams may pass without inconvenience.

We have removed 75 trees during the past year which were dead or dangerous. A continuation of this excellent work would soon remove from the streets all dead trees and those that are dangerous by reason of decay, although not dead.

SHADE TREE INSECTS

Shade tree insects are numerous and of great variety. During the past year a vigorous warfare was carried on against the Gypsy and Brown-Tail Moths, but they seem to be on the increase.

In addition to these pests we have had in certain sections of the city an insect which is commonly known as the "Maple Tree Louse" (*Pseudococcus Phenacoccus Aceris*). So much so, that during August much of the foliage would drop; this insect has spread rapidly during the year. It is confined to the *Acer Saccharinum*, Sugar Maple. It appears distributed over the body and large branches in minute, white cotton-like specks. When several are together the mass is quite large. In some instances

they are so numerous that the body of the tree has a distinctly whitish appearance. A single insect in its covering is scarcely noticeable, it is scarcely visible without the aid of a magnifying glass. These insects find their way to the leaves in the spring, and during the summer are said to produce three generations.

This is a dangerous species and should be stamped out. A little scraping of the bark on the trunk and lower portions of the principal branches, and the application of strong whale-oil soap solution (one pound to a gallon of water) will be perfectly efficacious against this insect. This application may be made at any time during the fall or winter. It might be well to make two applications, one early and one later.

Any one having a specimen of this tree can easily determine whether or not it is infested with this insect by examining carefully the trunk of the tree. If they see a few very minute specks here and there they may conclude that the insect is there, and the tree needs attention to prevent their increase. If the white spots are larger and more numerous the immediate danger is greater. The Sugar Maple is a handsome tree. It will be likely to succumb to the attacks of this insect unless it is protected against it.

Another insect which we have with us is the Tussock Moth (*Orgyia leucostigma*); this insect is a native of North America. It will attack every variety of shade, fruit and ornamental trees, with the exception of conifers. It passes the winter in the egg state, the eggs are laid by the female moth in the latter part of September in a glistening white, frothy looking mass attached to the outside of the cocoon. They are seen at a glance, owing to their pure white color, and remain conspicuous upon the trees until spring. They cast the skin five times; the newly hatched young feed on the under surface of the leaf, eating off the parenchyma and producing a skeletonized appearance.

The remedies for this insect are the collection or destruction of the eggs in winter, spraying the trees against

the larvae and banding unattacked trees to prevent the ascent of the caterpillars and the subsequent development of the moths, and the laying of eggs. The collection and destruction of the eggs must be thorough in order to have any practical efficacy.

The "Elm Leaf Beetle" (*Galeruca xanthomelaena*) has, during the past year been on the increase, so that its march of destruction has become a serious matter, and how best to exterminate them has been the study of our best entomologists. However, this most dangerous pest can be effectively destroyed by spraying the foliage as soon after the leaves are fully developed in the spring as is possible, although valuable spraying work can be done from May to the middle of July, when half formed beetles (yellow in color) go down the trees, with the full grown worms to hibernate during the winter, ready to go on with their deadly work the next year. As the female has wings and can fly from tree to tree, no other method but spraying can be effectual. This insect has been in this country about fifty years. Where it has gained a footing it has remained; some years more abundant than others, but all the time present. Some insects, and indeed, most of them, come, and in time go. Its history in Europe and its fifty years of life here lead to the belief that it has come to stay. Assuming then that under existing circumstances it will remain and disfigure this kind of tree, it is well to consider what is the best thing to do. If the people will unite and proceed intelligently in their warfare against insects the victory will be easy and the result gratifying. A wise expenditure of a comparatively small amount of money each year will keep the shade trees of this city green throughout the summer.

During the past year we have destroyed over four tons of Brown Tail Moth nests, and have destroyed by creosote over 30,000 nests of the Gypsy Moth. We tried an invention of Mr. Charles H. Chesley's of Dover, N. H., which consisted of a wooden frame 32 inches long and about 24 inches wide. The frame work was wound with

wires about one-quarter of an inch apart and were arranged in a sort of a coil within a coil. The machine was located just below the electric light and was connected with the electric light wires. When the insect struck the coils it made the connection and was supposed to complete the circuit which caused death. This machine was not a success.

Another invention of Mr. George F. Pearson of Lowell was tried; the inventor's idea was that the moths should be caught where they breed, and in order to carry out this idea, acetylene light was deemed the proper light to use, as it is bright and easily generated on the spot. The light head was a great reflector lighted by six three-foot acetylene burners placed at the head of a twenty-foot suction pipe, five inches in diameter, and held in position by three guy ropes, the head being so constructed that the suction of air drawing in around the six lights, draws in any insect which flies up to the lights, the air is drawn in by an eighteen-inch Sturtevant suction fan running 2000 revolutions a minute, operated by a two-horse power air cooled Gilson gasoline engine. The moths after passing through the fan are forced up into a separator which separates the moths from the air current and drops them into a large screened box lifeless.

With this invention I was favorably impressed, and if it could be constructed lighter and made so that it could be placed under the electric lights and moved from one light to another, I believe a great many moths could be destroyed while in flight.

Experiments without number have been worked out to destroy the pest and to guard against a recurrence, but I believe the most satisfactory is to spray the trees thoroughly with a solution of arsenate of lead. The question of proper spraying apparatus is a rather serious one, since in this direction a considerable amount of money should be expended. A steam apparatus of such a capacity that a pressure of 75 pounds per square inch may be gained, will enable the operation of four or five lines of hose simultane-

ously. The rapidity of the work will therefore be doubled, and certainly by the use of two such pumps the shade trees of this city can be gone over with sufficient rapidity to destroy all insects within the required time. I would therefore recommend that two such machines be purchased.

BILLBOARDS

The billboard evil is dangerous and widespread. It is pleading vested rights in its defence, but the growing outcry against it, the fact that men and women are declaring against it, that organizations are taking up the crusade, are all encouraging signs of the times. We may be indifferent, but I trust we are not dead to beauty or duty, and both these are calling to us to take up arms against the billboard.

The war on billboards should have, and I believe in time will have, the sympathetic approval and support of every loyal citizen, whether he is a lover of civic beauty or not. This warfare is as much in the interest of material business prosperity as in the interest of disfigured landscape. The great public is beginning to appreciate that whatever makes for the beauty of the streets of a city will also make for a greater power in all branches of business activity.

Everywhere one turns there are billboards; we have them all over our city; we have 185 billboards with a total of over 70,000 square feet.

In some cities they tax the billboards at the rate of four cents per square foot; if the billboards in this city were taxed at the same rate the income to the city would be over \$2,800. Is this not worth considering?

REMARKS

The movement for a large public park in our cities

does not usually originate with what is commonly called the people, but with a set of public spirited, broad-minded, citizens who have traveled and read and otherwise have been enabled to form a pretty good idea of what a large public park should be.

The true purpose of a large public park is to provide for the dwellers in cities convenient opportunity to enjoy beautiful natural scenery, and to obtain occasional relief from the nervous strain due to the excessive artificiality of city life.

Relief from the nervous strain of an artificial city life is afforded in no way so agreeably and conveniently as by a ramble amid the natural scenery of a large park and by the leisurely contemplation of the landscape.

An extent of natural scenery sufficient to afford the sense of quiet and seclusion, so beneficial to the city worker, can only be secured in a large park. Hence natural scenery should be the essential characteristic of a large park.

We frequently hear the question asked, in perfect good faith, "What is the use of parks?" We might answer by asking, "what is the use of public schools and libraries, or of anything that assists the development of human progress?" But if we examine the social conditions that exist in consequence of congested population, the necessity for providing means for recreation, as well as for education, is evident.

We are called upon to provide for the government and welfare of the masses who flock to America from foreign shores, believing that it is a land of promise flowing with milk and honey; that all men in this fair country are free with equal chance to win happiness and fortune.

We have our system of free public schools, and numerous colleges, so that none, not even the poorest child, may grow to manhood or womanhood without an opportunity for sound liberal education. Great libraries filled with the treasures of the world's literature and

scientific research are in nearly all our great cities, and many smaller places. invitingly open and free to every one that thirsts for knowledge. Free hospitals, maintained at public expense or provided by lovers of mankind, public asylums for the insane, schools for the dumb and blind, homes for the unfortunate and hopelessly poor, reformatories for the erring and young in crime, societies for the relief of suffering humanity are everywhere. Public beneficence, private charity, brotherly kindness and regard for others are in evidence wherever we turn; in no other land under the sun are the opportunities for happiness and worldly success so numerous, the means for uplifting the masses so great, the facilities for education and enlightenment so perfect, the amelioration of hard conditions of life so effectively applied.

Still, it is true that much remains to be done for the best development of human progress, the soothing of popular discontent, and the promotion of sound physical conditions of city life.

I would urge upon you gentlemen the importance of providing interior parks that will beautify this city and prove a blessing to the people. Urban parks, within easy walking distance of every home, are greatly to be desired, and in no way can you make this city more attractive to visitors. The cost of land will now probably be many times less than it will be a generation hence.

It is not my purpose to repeat the reasons for preserving park areas, and especially for protecting those whose beauty and value will continue to increase for generations to come. But taking it for granted that a park is worth preserving, it should be remembered that it is only safe when public sentiment is intelligently and actively interested in its behalf.

It may be that this aid can always be counted upon; but the real danger comes when the sober sense of the community is prostrated before a sudden gust of enthusiasm for some dazzling enterprise whose right to occupy and possess the park is insisted upon as superior

to that of the people or their descendants.

The ultimate safety of these pleasure grounds can be assured only by an enlightened and alert public sentiment; and it is a question worth considering by the friends of our public parks.

I believe that the time is ripe for the people to go out and secure a system of parks and boulevards which will surround our city, and which should be properly laid out and made ready for their full and free enjoyment, they will then be in a condition to boast of a system of public parks of which any city in our broad land might well be proud of. No park system with tracts of land situated in different parts of the city can be complete without boulevards or parkways connecting them together. These should be constructed and developed in the highest and most complete modern style of landscape and park architecture. These parkways connecting the larger tracts together will be a succession of small parks or stopping places throughout their entire distances, furnishing miniature effects, places of repose both for the eye and for the body, and are surely of equal importance with the large bodies of land for park purposes. The completion of such a system would require an outlay of a very large sum of money. A profitable return for all this outlay would be assured, not only from the increasing value of property, but from the greater enjoyment, health and happiness with which the public would be blessed.

There is no other pursuit so interesting, so wholesome, so improving to those engaged in it, and so fruitful in results, especially to the public, as that which engages the attention of the Park Commission, for it allies with itself the pride, the energy, and the enthusiasm which looks to bettering the condition and environment of this city. You cannot go to work to make a city beautiful outdoors in its physical aspect, and enlist the co-operation of our citizens in that work without setting in motion a train of influences which tend to make all indoors beautiful. It is a work which allies itself with all movements

for the benefit of the citizens, with sanitation, with health, education in all its forms, aesthetic, intellectual culture.

We are the pioneers for those who shall follow, and I cannot imagine that any grander work lies before any set of men than to develop the wonderful opportunities which are before us. The most charming form of beauty which can be found anywhere is that which is found outdoors.

Let us hope that the work of our life will prove to be of some value to our fellow-men by implanting in the heart a love for the beautiful of nature's product, which might probably be a means of refinement, and so tend to place under control some of the less desirable elements of his nature.

Public grounds are owned by the citizens, and every man, woman, and child should fully realize and feel their interest in such ownership, and know that they are freely and heartily welcome to enjoy the many blessings that the grounds afford, restricting themselves only to such rules and regulations as are necessary for the protection of the parks and their visitors.

In closing my report I wish to express to the members of the Board of Park Commissioners my fullest appreciation for their support and their good-will, and wish to thank the employees of the department for the efficient service rendered, making it possible to accomplish all that has been done.

Respectfully submitted,

CHARLES A. WHITTET,
General Superintendent.

REPORT OF CHRISTOPHER SCAIFE. SUPERVISOR.

The supervision of the Play Grounds was started on the South Common, Monday, July 5th, 1909.

It was decided by the Park Commission to hire only men of ability and experience in handling boys to direct them at their play. The following men were employed as supervisors:

C. Scaife,	Phy.	Director of Lowell
G. W. Wilton,	Phy.	Director of Lowell
E. Cranshaw,	"	"
G. King,	"	"

The boys were separated into groups, according to size and age, so that every boy could have a chance to play and enjoy the different games. Fifty-two different games were used during the season, and the boys were kept busy from nine-thirty in the morning until five o'clock in the afternoon. The attendance increased steadily from day to day, and increased from three hundred to nine hundred a day. For two weeks the supervision was confined to boys only, but it was discovered that something would have to be done for the girls, who came in large numbers, asking for a chance to play. This difficulty was finally overcome by the Middlesex Women's Club, who kindly came to the rescue and decided to send volunteer lady leaders over to teach and aid the girls in this play.

A vote of thanks is due to the Club and to the ladies who gave their time to the same. They worked diligent-

ly and cheerfully with the girls and little babies, who came to the playground from all parts of the City. This department was very successful, and it was a regular thing to see from two to three hundred girls playing together on the grass. One thousand different boys and girls used the playground, day after day, until the season closed. The total attendance was over twenty-three thousand, making an average of over five hundred a day. The influence was good. There was less cigarette smoking, less swearing, and the shooting of dice was stopped. The intoxicated and immoral loafers were kept off the common, making it a respectable place for the mothers and their babies to use for recreation.

In some sections of the great city of Chicago, where play grounds exist, the juvenile delinquency has decreased fifty per cent.

Chicago is spending hundreds of thousands of dollars in erecting and maintaining play grounds, and the citizens are certain that the money is well invested. Let us have more play grounds in Lowell, and more supervisors. It will tend to make better boys and better citizens for our city.

Respectfully submitted,

C. SCAIFE,

SUPERVISOR.

SUGGESTIONS MADE BY GEORGE C. WIL-
TON, ONE OF THE SUPERVISORS
OF PLAYGROUNDS FOR THE
CURRENT YEAR, 1909

The "Kelley Slide" could be made permanently attractive by making it about ten feet longer and at a more acute angle than the one now in operation at the North Common.

I would suggest that a scoop-like bend terminate the slide, the same to be twelve inches above the general level of the ground, which would gradually check the speed and enable the child to finish in a sitting posture; small rope mats on which to sit would add to and improve greatly the life of the slide. A "Sand Pit" at the lower end of the slide would add to the attractiveness of the apparatus. The chute, if made of polished papier mache would prevent scratching of the limbs and body or the tearing of clothes. I believe it to be a very durable substance.

Two "Tether-Ball" and two "Volley-Ball" posts set in cement would be most desirable; accidents resulting from the posts falling would be eliminated.

Iron posts set in cement on which the body of a "german-vaulting horse," canvas covered, which could be instantly attached and detached, and one set of parallel-bars also detachable would attract and hold the attention of many boys. The above apparatus to be serviceable should be practically immovable.

A "take-off" for jumpings of various kinds consisting of a 12"x12" beam 3 feet 6 inches in length, the lower half firmly set in cement and a "tan-bark lighting pit 10 feet by 6 feet would take up the shock that results from heavy lighting, and also lessen the chances of injury to the ankles, etc.

A thorough cleaning of the "Pool" and filling in with sufficient sand to give an average depth of eighteen inches with a constant stream of fresh water would make of an "eye-sore" an attraction for the youngsters that would be hard to beat. Small rafts suitable for one and two boys, with poles with which to push and to guide, a screen behind in which the youngsters could put on their swimming suits, etc. The surface of the pool should be cleaned daily; it would also be attractive as a swimming pool and would save many small boys that are daily tempted by the various canals of the city. The hygienic value would also be great.

Durable "bowling-alleys" could be constructed at a very low cost. The foundations should be of cement and covered with papier mache boards bolted to the underlying cement.

A trough made of the same material for the return of the balls would attract and hold boys of all ages. A sand pit at the pin end backed by boards to arrest the flying pins and balls would be essential.

Duck pins and the small balls would be most desirable; the weight is also more in keeping with their strength; score cards and a score board is very essential.

Broken glass should be removed daily, its presence is a menace to the "bare-footed" boy.

Shower baths and dressing rooms on the grounds are a necessity for the hygiene of the boys.

Segregation of the sexes is necessary. To ensure discipline and the greatest benefits the grounds should be properly policed between the hours of two and five p. m. and men removed from adjoining benches and from lying on the grass space allotted to the girls.

The various branches of "Raffia" work is highly educative and useful to girls of all ages.

Sand moulds, shovels, pails, etc., for the "Sand Court" and the installing of "baby swings" and an intelligent teacher to have charge of the same would make that department more interesting.

In planning for new playgrounds provision should be made for "tennis courts," "cricket fields," "golf links," "foot ball," and "base ball" fields and diamonds as well as "croquet lawns" and a P. S. A. Carosel. Land for such purposes can be secured at the present time at a fraction of what land will be ten years hence. The same could be held for future use. A practical illustration of the above is found in the glaring inadequacy of Playgrounds in Manhattan. The high cost of real estate forbids the City Fathers doing justice to the children of the streets and therefore the children suffer. A contrast to the above is found at The Orange County Playgrounds which includes the "Oranges" and Newark; provision has been made to accommodate the population for the next fifty years. Boston also is a notable example of the city's foresightedness in the matter of playgrounds.

LOWELL, MASS., DECEMBER 31, 1909.

TO HIS HONOR, THE MAYOR, AND THE CITY COUNCIL OF
THE CITY OF LOWELL, MASS.

Gentlemen:

We have the honor to submit to you a report of the expenditures of the Park Department of the Appropriation for Care of Trees.

Appropriation	\$1,000 00
Expended for Material and Supplies	\$256 39
Expended for Labor	743 61
	<u>\$1,000 00</u>

TO WHOM AND FOR WHAT MONEY WAS PAID.

To Whom	For What	Amount
Fred. C. Church	insurance	\$50 00
G. N. Rice	sharpening saws	1 30
Sherburne & Co.	jack	9 00
Burnham & Davis Lumber Co.	lumber	6 86
C. B. Coburn Co.	paints and oils	25 20
John C. Bennett	rope, saws, axes & paint	40 29
E. P. Bryant	wagon repairs and iron work	55 09
H. L. Gonzales	sharpening saws	12 00
Bartlett & Dow	saw set and grubs	7 65
C. H. Hanson & Co., Inc.	horse hire	3 00
Park Dept.	horse hire	46 00
	Total	<u>\$256 39</u>

LOWELL, MASS., DECEMBER 31, 1909

TO HIS HONOR, THE MAYOR, AND THE CITY COUNCIL OF
THE CITY OF LOWELL, MASS.

Gentlemen:

We have the honor to submit to you a report of the expenditures of the Park Department of the Appropriation for Little Canada Park and Play grounds.

Appropriation	\$2,000 00
Expended for material and supplies	\$1,181 26
Expended for Labor	318 74
	<u>1,500 00</u>
Balance.....	\$500 00

TO WHOM AND FOR WHAT MONEY WAS PAID.

To Whom	For What	Amount
Butterfield Printing Co.	team checks	\$ 2 50
James Whittet	boxes and shelter houses	367 37
John C. Bennett	paints	33 49
Chester B. Albee Iron Wks Co.	park seats	150 00
Narragansett Machine Co.	athletic apparatus	308 80
Amasa Pratt Co.	lumber	28 06
Burton H. Wiggin Co.	gravel	148 86
Bartlett & Dow	hardware	3 26
N. Y., N. H. & Hartford R. R.	freight	14 36
C. H. Hanson & Co., Inc.	teaming	6 25
H. R. Barker Mfg. Co.	back stop	15 00
P. O'Hearn	sand	1 20
Cross Awning & Sign Co.	canvas covers	50 00
Thompson Hardware Co.	wire netting	11 63
C. B. Coburn Co.	paints and oils	9 64
Hugh J. Fitzpatrick	tin roofing	19 00
The F. A. Bassett Co.	book	2 70
Pratt & Forrest	lumber	9 14
Total		<hr/> \$1,181 26

LOWELL, MASS., DECEMBER 31, 1909.

TO HIS HONOR THE MAYOR AND THE CITY COUNCIL OF
THE CITY OF LOWELL, MASS.

Gentlemen:

We have the honor to submit to you a report of the expenditures of the Park Department of the Appropriation for New Baseball Grounds.

Appropriation	\$1,000.00
Expended for Material and Supplies	\$999.00
Expended for Labor	1.00
	<hr/> \$1,000.00

TO WHOM AND FOR WHAT MONEY WAS PAID

To Whom	For What	Amount
Cyrus Barton	construction of wall	\$987 80
Courier Citizen Co.	advertisement	4 20
The Lowell Sun	advertisement	7 00
	Total	<hr/> \$999 00

Respectfully submitted,

JOHN E. DRURY,
Secretary.

LOWELL, MASS., DECEMBER 31, 1909.

TO HIS HONOR THE MAYOR AND THE CITY COUNCIL OF
THE CITY OF LOWELL, MASS.

Gentlemen:

We have the honor to submit to you a report of the expenditures of the Park Department of the Appropriation for Anne Street Ornamental Grounds.

Appropriation	\$1,500 00
Expended for Materials and Supplies	\$1,345 79
Expended for Labor	154 18
	<hr/>
Balance	03

TO WHOM AND FOR WHAT MONEY WAS PAID

To Whom	For What	Amount
Enterprise Foundry & Fence Co.	constructing of fence	\$1,234 00
Props. Locks and Canals Co.	labor cutting stone	1 23
Edward Cawley	cement	70
Boston & Maine R. R.	freight	1 33
Courier Citizen Co.	advertisement	1 50

To Whom	For What	Amount
Mahan & Meehan	drinking fountain	55 00
The Lowell Sun	advertisement	4 00
Western Union Telegraph Co.	telegrams	1 36
Engineer's department	engineer's services	42 66
The H. R. Barker Mfg. Co.	pipe and labor	3 81
New Eng. Tel. & Tel. Co.	telephone service	20
	Total	<u>\$1,499 97</u>

Respectfully submitted,

JOHN E. DRURY,
Secretary.

LOWELL, MASS., DECEMBER 31, 1909.

TO HIS HONOR, THE MAYOR, AND THE CITY COUNCIL OF
THE CITY OF LOWELL, MASS.

Gentlemen:

We have the honor to submit to you a report of the expenditures of the Park Department of the Appropriation for Play grounds and Supervision.

Appropriation	\$1,500 00
Expended for supervision and labor	\$624 05
Expended for material and supplies	875 95
	<u>1,500 00</u>

TO WHOM AND FOR WHAT MONEY WAS PAID.

To Whom	For What	Amount
A. C. Spalding & Bros., Inc.	apparatus	\$297 62
George F. Parsons	loam	2 00
American Express Co.	express	2 65
Harry Parker	loam	6 75
The New England Nurseries	trees	11 80
W. P. Brazer & Co	bats, balls, and mitts	29 20
Engineer's Dept.	photographs	2 56

To Whom	For What	Amount
Lull & Hartford	balls and tape	4 50
John C. Bennett	paint	6 00
C. H. Hanson & Co., Inc.	teaming	1 25
James Whittet	boxes for apparatus	39 60
Lands & Buildings Dept.	shower bath construction	92 66
N. Y. & B. Despatch Ex. Co.	express	65
H. R. Barker Mfg. Co.	pipe	2 94
C. B. Coburn Co.	rope and paints	16 74
Charles A. Whittet	railway expenses	3 75
Amasa Pratt Co.	lumber	6 67
A. G. Pollard Co.	soap, towels, and combs	3 20
Thompson Hardware Co.	hardware	33
Narragansett Machine Co.	apparatus	324 68
Boston & Maine R. R.	freight	3 55
N. Y., N. H. & Hartford R.R.	freight	25
W. A. Mack Co.	recovering slide	16 60
Total		\$875 95

Respectfully submitted,

JOHN E. DRURY,
Secretary.

LOWELL, MASS., DECEMBER 31, 1909.

TO HIS HONOR THE MAYOR AND THE CITY COUNCIL OF
THE CITY OF LOWELL, MASS.

Gentlemen:

We have the honor to submit to you a report of the expenditures of the Department for the Destruction of the Gypsy and Brown Tail Moths for the year ending December 31, 1909.

Appropriation	\$4,500 00
Additional appropriation	1,200 00
Receipts	28 97

Total appropriation	\$5,728 97
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Expended for Material and Supplies \$	369 41
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Expended for Labor	5,359 56
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Total expenditure	\$5,728 97
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LABOR AND SALARY PAYROLL FROM JANUARY 1, TO DECEMBER 31, 1909.

January	Pay roll No.	1, 2, 3, 4, 5,	\$1,513 72
February	" "	6, 7, 8, 9,	1,410 83
March	" "	10, 11, 12, 13,	1,461 18
April	" "	14, 15, 16, 17,	414 30
May	" "	18, 19, 20, 21, 22,	228 19
June	" "	23, 24, 25, 26,	173 53
July	" "	27, 28, 29,	142 34
August	" "	30,	15 47
Total			\$5,359 56

TO WHOM AND FOR WHAT MONEY WAS PAID OUT DURING THE YEAR.

FOR THE EXTERMINATION OF MOTHS.

To Whom	For What	Amount
C. B. Coburn Co.	glass, brushes, benzine, etc.	\$40 71
Bartlett & Dow	pruners, screws, tacks, etc.	36 76
George A. Hardy	team hire	16 00
John C. Bennett	paint and stencils	9 20
Pratt & Forrest	poles	13 32
Boutwell Bros., Inc.	bolts	3 88
Charles A. Whittet	railway fare	1 80
Dumas & Co.	moth assessment books	37 61
N. E. Tel. & Tel. Co.	telephone	72
C. H. Hanson & Co. Inc.	team hire	36 50
American Express Co.	express	35
Tucke & Parker Co.	batteries	1 50
Boston & Maine R. R.	freight	63
George E. Hutchins	nozzle	30

To Whom	For What	Amount
Wright & Potter Printing Co.	posters	9 50
Talbot Dyewood & Chem. Co.	arsenate of lead	66 00
D. F. Monroe & Co.	burlap	58 17
Fred C. Church	insurance	31 46
H. H. Wilder & Co.	alcohol burner	5 00
Total		<u>\$369 41</u>

MONTHLY EXPENDITURES

MATERIAL AND SUPPLIES

January	\$41 42
February	65 77
March	21 93
April ..	20
May	160 03
June	1 18
July	78 88
Total	<u>\$369 41</u>

Respectfully submitted,

JOHN E. DRURY,
Secretary.

LOWELL, MASS., DECEMBER 31, 1909.

TO HIS HONOR THE MAYOR AND THE CITY COUNCIL OF
THE CITY OF LOWELL, MASS.

Gentlemen:

We have the honor to submit to you a report of the expenditures of the Park Department of the Appropriation for Moths in Flight.

Appropriation	\$500 00
Expended for Labor	\$335 37
Expended for Material and Supplies	164 63
	<u>\$500 00</u>

TO WHOM AND FOR WHAT MONEY WAS PAID

To Whom	For What	Amount
The Lowell Electric Light Corp.	electric work	\$ 8 26
New York & Boston Despatch Express Co.	express	45
The H. R. Barker Mfg. Co.	hose nipple	80
The Talbot Dyewood & Chem. Co.	arsenate of lead	39 00
F. M. Bill & Co.	brooms	7 50
Lowell Automobile Company	repairs	2 70
The Knox & Morse Co.	chemo	10 00
C. B. Coburn Co.	gasoline	4 15
New Eng. Tel. & Tel. Co.	telephone	40
American Express Co.	express	66
Arthur Bartlett	labor	37 75
The Davis Printing Co.	printing	8 00
G. C. Prince & Son	stamped envelopes	44 96
Total		<hr/> \$164 63

Respectfully submitted,

JOHN E. DRURY,
Secretary.

SIXTY-FIFTH ANNUAL REPORT
OF THE
LOWELL CITY LIBRARY

TWENTIETH REPORT
OF THE
LIBRARY TRUSTEES

OF THE CITY OF LOWELL
MASSACHUSETTS



FOR THE YEAR NINETEEN HUNDRED NINE

ADMINISTRATION OF THE LIBRARY, 1909

Board of Trustees

HON. GEORGE H. BROWN, MAYOR, *Ex-officio*

PETER W. REILLY	Term expires	1911
ROWENA PALMER	" "	1912
FRANK P. PUTNAM	" "	1913
HON. CHARLES E. HOWE	" "	1914
THOMAS WALSH	" "	1915

Organization

HON. GEORGE H. BROWN, Chairman

FRANK P. PUTNAM, Vice-Chairman

PETER W. REILLY, Clerk

Librarian

FREDERICK A. CHASE

Assist. Librarian

HARRIET F. HILL

Assistants

ALICE M. MYERS	ALICE H. KIDDER	HARRIET M. SULLIVAN
RACHEL FLINT		EVERETT BLOOD

Bindery

WALTER H. GILMAN

HARRY C. BOWEN

Superintendent of Reading Rooms

STEPHEN T. WYMAN

Librarian of Children's Room

BERTHA G. KYLE

Report of the Trustees for 1909

To the Honorable, the City Council of Lowell:

GENTLEMEN: The Trustees of the City Library herewith present their annual report for the year 1909.

FINANCIAL STATEMENT

RECEIPTS

Balance from previous year	\$ 409.45
Appropriation by City Council	14,000.00
Interest on Deposit	69.40
Fines and other receipts	420.80
	<hr/>
	\$14,899.65

EXPENDITURES

Salaries	\$ 9,308.44
Lighting	930.57
Binding	702.76
Books	618.72
Periodicals	768.94
Sundries—Printing	\$353.55
Water Tax	13.50
Library Art Club	6.00
Insurance	600.00
Express, &c.	51.46
Supplies	439.19
Postage	39.82
Box Rent	8.00
Miscellaneous	64.70
Lighting Plant	908.72
Power	81.90
Cash on Hand	2,566.84
	<hr/>
	3.38
	<hr/>
	\$14,899.65

LIBRARY TRUSTEES' REPORT OF 1909

JOHN DAVIS FUND—INCOME FOR 1909

Cash on hand at last report	\$5,707.88
Dividends and Interest received	4,273.75
Liquidation of 8 shares National Bank of Republic, Dividends 5-8	200.00
Liquidation of 11 shares Prescott National Bank, Final Dividend	44.22
Rebate on Tax on National Bank shares, 1909	83.05
H. A. Brown, Ex., further assets of Davis Est.	470.46
F. A. Chase, Agt., rent account	168.59
Mortgage note paid in	200.00
	<hr/>
	\$11,147.95

EXPENDITURES

Expenses of Children's Room	\$ 621.75
Expenses of Sunday Opening	347.19
Books purchased for the Library	3,845.21
Finishing Children's Room	1,990.04
Auditing	25.00
Sinking Fund	100.00
½ share American Tel. & Tel. Co. in adjustment of holdings	72.00
Cash on hand Jan. 1, 1910	4,146.76
	<hr/>
	\$11,147.95

THE WORK OF THE YEAR

The changes in the Children's Room proposed last year were begun in May. As this department has been one of the best attended in the library and has grown constantly, it was decided, both because it was to be a memorial to Mr. and Mrs. Davis but also that the work there might be conducted under more favorable

conditions, to make the room convenient and attractive. Drawings for the finish of the room were made by William Chester Chase of Boston which called for a sheathing of ash over the entire room. The work was executed by Messrs. Marshall & Crosby of this city. A new Karbolith flooring was laid by the American Mason Safety Tread Co. The cost of the entire improvements in this room has been met by the Davis Fund.

The resignation of Mr. Putnam at the close of the year was much regretted. The following resolutions were adopted by the Trustees and placed on record:

It is with great regret that the Trustees of the Lowell Public Library learn that Frank P. Putnam, being about to take up his residence in an adjoining town, has, after nearly twenty-one years of active and valuable service on the Board, severed his connection therewith.

His interest in the Library has always been keen, his services have always been given freely and gladly, and his great experience and business capacity have enabled him in large measure to help enrich and economize the working of the institution. Of broad and catholic tastes, his wide knowledge of literature, art, history, science, biography and travel has been of great service in the selection of books and prints; from his abounding kindness and deep sympathy he has been an ever-ready friend and counselor to the Library employees; and with no thought of self in his constant and unswerving attention to the wants of the Library and his devotion to its work, he has won the respect, esteem, and love of his fellow trustees. They sincerely regret to have to part with him.

At a meeting of the Trustees, Friday, Dec. 31, 1909, it was unanimously voted to send to Frank P. Putnam, in appreciation of his past services, a letter of thanks, and to extend to him freely and gladly the use and courtesies of the Library.

THOMAS WALSH.

ROWENA PALMER.

HENRY H. HARRIS.

For the Trustees.

January 1, 1910.

CIRCULATION

The circulation for the year showed a slight decrease of 207 volumes. This was due in part to the restricted quarters occupied by the Children's Room during repairs. The circulation of books in libraries is affected by various influences, some of which cannot be easily traced. It is often affected temporarily by industrial conditions. Wherever business is active and employment becomes general less attention is given to books and the library circulation suffers.

Recent reports of many libraries show a decreased circulation. By some it is attributed to the multiplication of circulating libraries and cheap reading, and by moving picture shows, theatres, and other forms of entertainment for the people which have greatly increased in recent years.

PUBLICITY

Weekly lists of additions to the library have appeared in three of our local papers. Special lists on LINCOLN, TEXTILES were printed and distributed freely at the desk and sent to the schools and mailed to whomever it was thought would find them useful.

BOOKS FOR THE BLIND

At the instance of Miss Julia E. Burnham of this city, a teacher in the Perkins Institution of South Boston, the beginning of a collection of books for the blind was made in the gift from the Perkins Institution of the following books in embossed type:

Stories and Tales
Arabian Nights
Story of Siegfried
Alice's Adventures in Wonderland
Pickett's Gap
Boy's Percy
Captain January
Black Beauty
Wild Animals I Have Known
Rebecca of Sunnybrook Farm
History of the Great Plague in London
Odysseus
Carlyle's Essays
Beauties of Nature
Milton and Hastings
Henry Esmond
Evangeline and Other Poems
Memoir. M. Anagnos
History of Greece
History of Rome
Cicero Orations
Monsieur Viple's Brother
Pope's Mule
Bar Sinister
Red-headed League
Bird of Passage
Get Out or Get In Line
A Perjured Santa Claus
Don't Hurry Club
Murders in the Rue Morgue
Against Orders, and Sammy
Death Disc
Old Peabody Pew

A note from the Perkins Institution which accompanied the gift expresses the hope that the books given would prove a comfort to the sightless readers of Lowell. The library will be glad to meet the needs of the blind of this city and would be glad of the co-operation of the public in carrying on the work. If anyone

will inform the librarian of the names of any who would be interested in this collection a list of the books which we have will be sent them. The attendants at the Library will be glad to show the books to anyone interested and the Perkins Institution will loan individuals through our library any books which we do not have. We regret our inability to provide a separate room for the use of the blind where classes may be held and readings given.

NOTABLE GIFTS

It has been the aim of the library for some time both by harmonious coloring, by photographs and other art objects, to make the rooms open to the public as attractive and artistic as our means would permit. The gift by Mr. Freeman B. Shedd of a most interesting and artistic example of Japanese pottery was therefore most acceptable. In the catalogue of the sale at which Mr. Shedd's gift was purchased is the following description of it:

Technically described it is an Imari jar, 63 inches in height and 25 inches in diameter. This is decidedly the largest specimen Japan ever produced in perfect order. From every point of view it is a wonder of the art loving world and the pride of Japan, as it is very well understood that no porcelain ware of such enormous size can certainly be made without a flaw in it, even by the most experienced and scientific workers; it is by mere chance that such a one is produced. After seven years of strenuous effort this one was made by Kanzo, the best artist now in existence in Japan, for the express purpose of exhibiting it at the world's Columbian exposition, not with a view of selling it, but to receive great applause. The same was forwarded to France to be exhibited at the Paris exposition, and from there re-imported to this country last spring for the purpose of exhibiting it in the royal dwelling house in "Fair Japan," Pan-American exposition.

The 25 figures in the decoration show the different costumes of the Genroku period; and on the decoration of the costumes, very thick gold, pure lacquer, and rich coloring is used.

During the exposition in Paris it attracted his royal highness, the Prince of Wales, now King Edward VII.; but, as stated above, it was made to be merely exhibited, and in consequence failed to have the honor of being kept in the royal palace.

MR. SHEDD'S GIFT

In accepting Mr. Shedd's gift the following note of appreciation and thanks was sent:

LOWELL, JUNE 9, 1909.

DEAR MR. SHEDD:

The board of library trustees returns sincere thanks for the rare and costly Japanese vase presented by you yesterday to the city library.

The trustees feel it particularly gratifying that you give for the benefit of the people of Lowell what would be a welcome acquisition to any art collection in the country; and pleased as they are that the library should possess so choice a specimen of modern Japanese ceramics, they appreciate even more highly the generosity and public spirit that prompted the gift.

With grateful acknowledgments,

ROWENA PALMER,
For the Trustees.

Another gift from Mrs. W. B. Jackson of a collection of about one hundred stuffed birds has been of much interest to the young people. The examples collected are all birds found in this locality and will doubtless prove most instructive.

LIBRARY TRUSTEES' REPORT OF 1909

EXHIBITIONS

Up the Rhine	Shakespeare	Yosemite
Millet	Italian Fountains	Madonna in Art
	Famous Pictures No. 3	Corot
Concord	Southern Coast of England	Ireland
Yellowstone		Vatican Palace

BOOK EXHIBITIONS

Furniture	Houses and Interiors	Gardens
	Japan	London
	Paris	Rome
		Alaska

CONTENTS OF THE LIBRARY, CLASSIFIED

CLASS OF BOOKS	NO. VOLS.
General Works	1,872
United States Government Publications	6,000
Magazines	10,482
Philosophy	1,279
Theology	3,965
Sociology	3,898
Philology	443
Science	3,056
Useful Arts	2,741
Fine Arts	3,466
General Literature	8,187
Biography	6,263
History, Description and Travel	11,921
Genealogy and Heraldry	428
Fiction	14,169
Standard Library	1,100
Total	79,270

LIBRARY TRUSTEES' REPORT OF 1909

CONDITION OF THE LIBRARY

Volumes purchased during the year	2,238
Volumes added by gift	92
Volumes added by binding periodicals	275
Worn-out books replaced	160
Duplicates purchased	194
Total number of volumes added	2,251
Total number of volumes in the Library	79,270
Periodicals and papers subscribed for	191
Periodicals and papers given	20
Number of volumes used, home and reference	130,421
Number of volumes consulted in the Reference Room	9,408
Number of postcards sent to delinquents during the year	4,256
Applicants received during the year	2,245
Applicants who did not call for cards	82
Number of names registered Dec. 31, 1908	34,874
Number of names registered March 31, 1909	35,454
Library open, days	300½
Total circulation	130,421
Average daily circulation	434
Largest monthly circulation (March)	14,367
Smallest monthly circulation (August)	7,556
Largest daily circulation (February 13)	1,033
Smallest daily circulation (March 25)	150
Percentage of fiction read	70.4
Percentage of other classes	29.6

NEW REGISTRATION WITH THREE YEAR LIMIT, APRIL 1, 1909

Number of names registered Dec. 31, 1909	3,546
Renewed applications	1,963
Total registered during the year 580 + 1583	2,163

LIBRARY TRUSTEES' REPORT OF 1909

LIST OF DONORS, 1909

	VOLS.	PAMPHLETS
American-Irish Historical Society	1	
American Swedenborg Society	8	1
Andover Theological Seminary	1	
Asso. International Conciliation	1	
Ayer, J. C. Co.	1	
Bank Commissioners	26	
Beard, Clara	3	
Belden, Charles	25	
Boston, City of	1	
Bowdoin College	1	
Brown, Hiram C.	1	
Conant, Charles H.		1
Dartmouth College	1	
Farnsworth, Edward C.	2	
Floyd, Fred C.	1	
Floyd, Warren L.	84	35
Forrest, Mrs. Adaline H.	8	
Gregg, John R.	1	
Harvard University	1	
Horsburg, James	1	
Kilgore, J. M.	1	
Lowell, City of	2	2
Lynds, William H.		1
Manchester, Rev. L. C., D. D.	2	
Massachusetts Institute of Technology	1	
Massachusetts, State of	17	
Mississippi, State of	2	
Moon, James H.	1	
Mumford, Alice D.		
Estate of Mrs. Ellen D. Carney	34	
New York, State of	4	
Parker, Dr. Moses G.	3	
Princeton University	1	
Raymond, George L.	5	
Reade, Gen. Philip H.		1

LIBRARY TRUSTEES' REPORT OF 1909

	VOLS.	PAMPHLETS
Royal Society of Canada	1	
Shedd, Freeman B.	1	
Singer Mfg. Co.	1	
Smith, Joseph	1	
Society Americana		1
Southworth, W. S.	8	
Spackman, F. A. & A. P. Miller	4	2
Sproule, William E.	1	
Towle Mfg. Co.	1	
Tufts College	1	
United States Brewers' Asso.	1	
Wisconsin Historical Society	2	
Woodworth, A. B.	1	
Totals	264	44

Jackson, Mrs. Clara T.	Birds
Shedd, Freeman B.	Imari Jar
Spyropulos, N. D.	Greek Daily Paper
United States	
Dept. of Interior	37 Maps

AUDITOR'S REPORT OF THE JOHN DAVIS FUND

LOWELL, MASS., December 15, 1909

*To the Trustees of the City Library,
Lowell, Mass.,*

MESSRS. GEORGE H. BROWN, MAYOR, *Ex-officio*,
CHARLES E. HOWE, THOMAS WALSH, FRANK P.
PUTNAM, PETER W. REILLY AND MRS. ROWENA
PALMER.

GREETING:—

The accounts of your trusteeship of the John Davis Fund for the year ended November 30th 1909 and the assets composing the fund at that date having passed under my audit and examination, let me report thereon as follows:—

The invested assets consisting of bonds, stock certificates, savings bank deposit-books and mortgage notes, together with personal property in shape of silverware and jewelry, were produced for my examination by the custodians, Messrs. Andrew G. Stiles, City Treasurer and Frederick A. Chase, Librarian, and found correct as required by the records and last audit.

All items of income accruing and payable during the year under report were correctly received and accounted; the recorded conversions of the fund from one form of asset value to another and all cash disbursements were properly authorized and correctly accounted. The records of cash receipts and disbursements and the final cash balance have been audited and verified to my complete satisfaction.

A condensed showing of the cash transactions appears as follows:—

LIBRARY TRUSTEES' REPORT OF 1909

Cash Balance December 1, 1908	\$ 6,976.49
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CASH RECEIPTS

From Repayment of Temporary Loan to Trustees' General Funds	\$ 3,000.00
Interest and Dividend Earnings on Investments and Loans	4,075.36
Interest on Deposits in Appleton Nat'l Bank	100.00
Additional Cash Assets paid over by H. A. Brown, Executor	470.46
Refund of Taxes on National Bank Stock	104.73
Liquidator's Dividend on 8 shares National Bank of Republic Stock	280.00
Liquidator's Final Dividend on 11 shares Prescott National Bank Stock	44.22
Partial Payment on Mortgage Note of M. and D. J. M.	200.00
Total	\$ 8,274.77

CASH DISBURSEMENTS

For Temporary Loan to Trustees' General Funds in anticipation of annual appropriation of City Council	\$ 3,000.00
Purchase of Books	6,813.90
Repairs and Improvements	682.00
Purchase of 1/2 share of American Telephone & Telegraph Co. Stock	72.00
Deposit in Central Savings Bank to Account No. 35073	100.00
All as authorized by signed votes and orders of Trustees	
Total	\$10,667.90

LIBRARY TRUSTEES' REPORT OF 1909

CASH DECREASE

By Excess of Disbursements over Receipts for Twelve Months ended November 30, 1909	2,393.13
Cash Balance November 30, 1909	\$ 4,583.36
Balance due from Appleton National Bank per John Davis Fund Account	\$ 4,461.86
Balance due from Appleton National Bank per Trustees City Library Account	61.50
Cash in Hand of Frederick A. Chase, Clerk of Trustees	60.00
All as certified by this Audit	\$ 4,583.36

My examination of the invested assets was satisfied by finding all bonds correctly registered, stock certificates and savings bank books properly issued and entitled to the Trustees and mortgage deeds properly executed and recorded, with accompanying fire insurance policies in force for sufficient security and properly assigned.

The following schedule shows these investments as of November 30th 1909, while the summary gives the comparative valuations of the entire Fund as of that date and December 1st 1908.

JOHN DAVIS FUND INVESTMENTS

30 November 1909

REGISTERED BONDS

\$10,000	City of Boston-Suffolk County Court House Loan	3½%	1919	\$ 9,750.00
11,000	Boston & Maine R. R.	4½%	1944	11,495.00
10,000	Boston & Maine R. R.	4%	1926	9,900.00
4,000	Boston & Albany R. R. Re- funding	3½%	1952	3,560.00

LIBRARY TRUSTEES' REPORT OF 1909

10,000	N. Y., N. H. & H. R. R. Harlem River & Port Chester 1st Mortgage	4%	1954	\$10,000.00
10,000	N. Y., N. H. & H. R. R. Debenture	4%	1914	9,900.00
10,000	Ill. Central R. R. Co. Purchased Lines 1st Mortgage	3½%	1952	8,950.00
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\$65,000				\$63,555.00

RAILROAD STOCKS

41	Shares	Boston & Maine R. R. Common	@	149	\$ 6,109.00
39	"	Boston & Albany R. R.	@	228	8,892.00
1	"	Nashua & Lowell R. R.	@	245	245.00
1	"	Concord & Montreal R. R. 4th Cl.	@	169	169.00
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					\$15,415.00

MANUFACTURING STOCKS

50	Shares	Merrimack Mfg. Co. Com.	@	55	\$ 2,750.00
3	"	Lowell Bleachery	@	140	420.00
12	"	Middlesex Co.	@	50	600.00
49	"	Bigelow Carpet Co.	@	141	6,909.00
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					\$10,679.00

BANK STOCKS

6	Shares	Nat. Bank of Commerce, Boston	@	173½	\$ 1,041.00
9	"	Appleton Nat'l. Bank, Lowell	@	104	936.00
3	"	Old Lowell Nat. Bank, Lowell	@	101	303.00
2	"	Wamesit Nat. Bank, Lowell	@	101	202.00
11	"	Union Nat. Bank, Lowell	@	180	1,980.00
10	"	First Nat. Bank, West Newton	@	140	1,400.00
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					\$ 5,862.00

LIBRARY TRUSTEES' REPORT OF 1909

MISCELLANEOUS STOCKS

12	Shares American Tel. & Tel. Co.	@	140	\$ 1,680.00
3	" Lowell Gas Light Co.	@	285	855.00
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				\$ 2,535.00

SAVINGS BANK DEPOSITS BOOKS

No. 4522	City Institution for Savings	\$ 1,020.00
" 72189	City Institution for Savings	609.72
" 6223	Merrimack River Savings Bank	1,131.53
" 35073	Central Savings Bank	431.24
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		\$ 3,192.49

MORTGAGE NOTES

M. & D. J. M.	\$ 100.00
A. H.	2,000.00
M. M. & D. W. R.	650.00
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	\$ 2,750.00

SUMMARY OF INVESTMENTS AND CASH ASSETS

November 30th, 1909

	Valuation 1 Dec. 1908	Valuation 1 Nov. 1909	Increase	Decrease
Registered Bonds	\$ 63,572.50	\$ 63,555.00	\$	\$ 17.50
Railroad Stocks	14,638.75	15,415.00	776.25	
Manufacturing Stocks	8,555.00	10,679.00	2,124.00	
Bank Stocks	5,663.00	5,862.00	199.00	
Miscellaneous Stocks	2,100.00	2,535.00	435.00	
Savings Bank Deposits	3,010.39	3,192.49	182.10	
Mortgage Notes	2,950.00	2,750.00		200.00
Cash in Hand and Bank	6,976.49	4,583.36		2,393.13
Silverware and Jewelry	90.15	90.15		
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		\$107,556.28	\$108,662.00	\$1,105.72 (Net)

LIBRARY TRUSTEES' REPORT OF 1909

The cash balance of November 30th 1909 includes an item of \$61.50 (see page 2) which was deposited April 6th 1909, but through the bank's error it was credited on its books to the "Trustees of City Library Account" instead of the "John Davis Fund Account." The City Treasurer's attention has been called to this, in order that he may arrange for the proper correction of the error.

The bookkeeping records of your trusteeship in respect to the John Davis Fund are kept in duplicate, one set by the Clerk of Trustees and the other by the City Treasurer, the latter holding the bank account and making all deposits and payments. In my opinion, it would be an advantage to have your set kept by double-entry method, instead of in memorandum form as at present, so that a strict division between principal and earnings may be always in evidence for the purpose of clearer accounting.

Interest on savings bank deposits should be credited on the respective deposit books at least once a year just prior to the annual audit; and interest on depository daily balances might well be credited to the close of each November.

For the purpose of a thorough audit, duplicates of all deposit tickets should be kept on file, and invoices of book purchases should be rendered in duplicate so that one copy may be kept in the Clerk's office to show the items charged the Fund in agreement with the original invoice passed for payment. While such payments are authorized over the signatures of the Trustees, there are no basic records remaining in their possession to support such charges to the Fund. The party receiving and checking the purchases against the invoices should certify by affixing his initials to both original and duplicate, the other approving signatures being added below.

Certified and respectfully submitted,

A. R. PHILBRICK,

Public Accountant and Auditor.

ANNUAL REPORT

OF THE

CITY SOLICITOR

FOR THE YEAR ENDING

1909-1910



LOWELL, MASS.
BAKER PRINTING CO.
1910

REPORT.

OFFICE OF CITY SOLICITOR,
Lowell, Mass., February 28, 1910.

Gentlemen of the City Council:

In compliance with the City Ordinances, I submit the following report of the Law Department for the year ending February 28, 1910.

LITIGATION.

56. *Philip Gauthier v. City of Lowell.*

This is an action of contract brought by the plaintiff to recover the sum of three hundred dollars for injuries received to plaintiff's horse December 26, 1907, by reason of an alleged defect in the bridge over the canal on Aiken St. The writ is dated December 24, 1909 and returnable to the Police Court of Lowell the first Saturday of February 1910. Plea of abate-

ment was filed with the Court setting forth as ground for abating plaintiff's writ, that there is a variance between plaintiff's writ and declaration in that said writ alleges an action of contract against said defendant and its declaration is of tort.

485. *City of Lowell v. Joseph S. Lapierre, Adms.*

This was an action of contract brought by the plaintiff against Joseph S. Lapierre, Administrator of the goods and estate of Maria Pulson, deceased, to recover the sum of \$300, for board and care of Maria Pulson at City Hospital and Almshouse. The writ was dated November 11, 1909, and returnable to the Police Court of Lowell the third Saturday of November, 1909. The case was submitted to Justice Hadley of the Police Court of Lowell, who found for the plaintiff, and judgment for the plaintiff was entered for the full amount, which was paid.

15172. *Molly Varnum Chapter, Daughters of the American Revolution v. City of Lowell.*

This was an action of tort or contract brought to recover the sum of \$46.56 with interest thereon because of the refusal of the Assessors to abate a tax assessed on real estate occupied and used by a literary, benevolent, scientific and charitable corporation. The writ was dated October 3, 1908, and returnable to the Superior Court the first Monday of November 1908.

The case was argued on agreed statement of facts before Mr. Justice Bell at the May sitting of the Superior Court 1909. The court found for the plaintiff and assessed damages in the sum of \$48.42. The defendant appealed to the Supreme Judicial Court. The case was argued before the full bench in November, 1909, and on January 26, 1910, rescript was filed directing the following entry: "Judgment affirmed."

14776. *Alice M. Trites v. City of Lowell.*

This was an action of tort for alleged personal injuries received while walking along Dutton Street, on the crossing at the intersection of Broadway with said Dutton Street, said injuries being due to the alleged defective condition of the crossing and street-railway tracks at said point. The writ was dated July 12, 1908, and returnable to the Superior Court the first Monday of August 1908. Trial was had at the April sitting of the Superior Court 1909, which resulted in a verdict for the plaintiff for \$100 and costs amounting to \$40.05 which was paid and judgment satisfied.

15660. *Elizabeth Gannon v. City of Lowell.*

This was an action of tort for personal injuries alleged to have been received by reason of a defect in the sidewalk on the easterly side of Chapel Street and

opposite the southwesterly corner of the house numbered 40 on said street. The writ was dated November 7, 1908, and was returnable to the Superior Court the first Monday of January 1909. The plaintiff was undoubtedly very severely injured. Both sides were in court ready for trial at the April sitting of the Superior Court 1909, but after conference with plaintiff's counsel I agreed to judgment for the plaintiff in the sum of \$400 without costs, which was paid.

16977. *Frank E. Rollins v. City of Lowell.*

This was an action of contract brought by the plaintiff to recover the sum of \$3941.62 with interest thereon for labor and services in furnishing 976 folios of Commissioners Reports on abolition of grade crossings and 10,797 folios of proceedings at hearings on charges against Frank K. Stearns, Thomas P. Boulger and Charles H. Hanson, Police Board of Lowell. The writ was dated September 28, 1909, and returnable to the Superior Court the first Monday of November 1909. The liability of the city seemed reasonably certain and I agreed to judgment for the plaintiff in the sum of \$4053.17 together with costs amounting to \$67.07 which was paid and judgment satisfied.

ABOLITION OF GRADE CROSSINGS (1905)

1201. *Mayor and Aldermen v. Boston & Maine Railroad, et al. (Abolition of Grade Crossings)*

1265. *Same (Plain Street and Boston Road)*

1266. *Same (School Street and Walker Street)*

1267. *Same (Lincoln Street)*

I am pleased to record that the abolitions of School Street, Walker Street, Lincoln Street, and Plain Street and Boston Road are a certainty. Many hearings and conferences were held and finally the commissioners, Messrs. Arthur Lord, David F. Slade and Henry A. Wyman, have made its report and it was on motion approved and confirmed by the Superior Court.

8911. *Charles Cowley v. City of Lowell.*

This is an action of tort or contract brought by the plaintiff in the Superior Court. The writ was dated July 1, 1905, and returnable the first Monday of August, 1905. The cause of action is fully explained on page 13 in report for 1905-1906. In February 1908 the plaintiff died and his sister, Miss Eliza Cowley, who was appointed as executrix was admitted as plaintiff to prosecute the action. The case has been tried together with a similar action brought against the Proprietors of the Locks and Canals on Merrimack

River. Many hearings and conferences were held at great length. The evidence was concluded in 1908 and arguments were made in May 1909, and decision of the Auditor Franklin T. Hammond, Esq., is awaited.

16744. *Josephine Nolet v. City of Lowell.*

This is an action of tort for personal injuries alleged to have been received by the plaintiff November 21, 1908, by reason of the carelessness and negligence of the defendant in permitting its servants and agents to operate a steam roller in Sixth Street without placing proper barriers, signs or warning to notify the plaintiff or any other person of the proximity of said roller or danger connected therewith.

The writ is dated July 3, 1909, and is returnable to the Superior Court the first Monday of September 1909. Pending.

16707. *Alden B. Illsley v. City of Lowell.*

This is an action of contract brought by the plaintiff to recover the sum of \$357.35 alleged to be due him for services as assistant engineer in the engineering department of the City of Lowell. The writ is dated July 27, 1909, and returnable to the Superior Court the first Monday of September 1909, Pending.

1900. *Patrick Byrne, et al, v. Jaques Boisvert et al. (Equity.)*

This is a bill of complaint by Patrick Byrne and Ann Byrne against Jaques Boisvert and the City of Lowell praying that the defendants be restrained from interrupting and obstructing the natural flow of a certain ancient watercourse or drain which has for a long time flowed a long distance across and through the land of sundry parties into and upon the land of the plaintiff's in a certain defined channel into and across certain premises of the defendant Boisvert, adjoining said land of the plaintiff's on the East; and thence through and under Hildreth Street, and ordered to pay the plaintiffs such sums as may be due to them for the unlawful acts of the defendants, who without right did obstruct and divert the natural flow of said watercourse where it crosses the land of the plaintiff, greatly damaging said land and buildings thereon. The City of Lowell disclaimed liability in this case and an agreement for dismissal was entered in the Superior Court, viz: "In the above entitled suit it is hereby agreed that an entry may be as follows:"—"Bill dismissed against the City of Lowell, without costs."

Billerica Street Bridge.

Petition of the Board of Aldermen of the City of Lowell in the County Commissioners of Middlesex County praying that alterations be made in Billerica Street in said Lowell, where the railroad bridge on the

Lowell & Lawrence branch of the Boston & Maine Railroad crosses said street, by raising said bridge, widening said passageway and lowering said street. Hearing was had before said Commissioners and a view of the premises taken September 14, 1908. Subsequent hearings and conferences were held at Cambridge with said Commissioners and the counsel of the Boston & Maine Railroad. Under date of January 30, 1909, said Commissioners rendered a decree that public necessity required an alteration in the premises described in said petition, and set forth how the work should be done.

Petition has been filed with the Superior Court for the appointment of a special commission to determine which party shall carry such decision into effect and which party shall pay the charges and expenses of making such alteration and the further charge for keeping such bridge and crossing and the approaches thereto in repair, as well as the costs of the application to the County Commissioners, and of the hearing before said special Commissioner and to determine all other matters within their province. Pending.

17116. *City of Worcester v. City of Lowell.*

This was an action of contract brought to recover the sum of \$25.86 with interest for the care and maintenance of Rolland Plomondon at the Isolation Hospital at Worcester, Mass. The writ was dated October 7, 1909,

and was returnable to the Superior Court the first Monday of December, 1909. Settlement was made in full and by agreement of counsel entry was filed with the Superior Court as follows:— “Neither Party.”

Connors Brothers Company v. City of Lowell.

This was an action of contract brought by the plaintiff in the Police Court of Lowell. The writ was dated June 4, 1909, and returnable the third Saturday of August, 1909. This case was not entered in Court.

13. *Connors Brothers Company v. City of Lowell.*

This was an action to recover the sum of \$650, alleging said sum was for money had and received by the defendant to the use of the plaintiff. The writ was dated December 3, 1909, and returnable to the Police Court of Lowell the second Saturday of January, 1910.

The defendant petitioned the Court that one Augustine Dondero be made a party defendant in said action; that said Dondero purchased at a tax sale held by the collector of Taxes of defendant city certain lots of land located in said city; that the plaintiff having interest in said land redeemed the same and paid to said collector of taxes the amount required for said purchase, with one dollar additional; that said collector gave to the plaintiff a

proper certificate therefor and now holds the same with the exception of one dollar subject to the demand of said Dondero. That said Dondero has never demanded the same; that the amount due from the defendant is \$650, the amount claimed in plaintiff's declaration; that the plaintiff claims the same; that it appears that said Dondero is entitled thereto; that the defendant has no interest therein, but only desires to be relieved from all responsibility in the premises. The defendant therefore paid into Court the sum of \$650 and prayed that it be stricken out as a party to said action and that its liability for said sum may herewith cease.

15041. *James C. Donovan v. City of Lowell.*

This was an action to recover under the statute certain sums of money paid to the city treasurer for tax titles which were alleged to be defective in the assessment and sale of the land. The writ was dated September 1, 1908, and returnable to the Superior Court the first Monday of October, 1908. I made a very careful investigation of the facts in the case and being satisfied it was for the best interest of the city to avoid the recovery of larger amounts, I agreed that the following entry be made in the Superior Court, "Judgment for the plaintiff in the sum of \$900 debt or damage," which was paid and judgment satisfied.

238. *Henry L. Riggs v. City of Lowell.*

This was an action to recover under the statutes, certain sums of money paid to the city treasurer for tax titles which were alleged to be defective by reason of errors, omissions and informalities in the assessment and sale of the land. The writ was dated May 1, 1909, and returnable to the Police Court of Lowell the third Saturday of June 1909. After a careful investigation of the case I became certain of the city's liability and agreed to judgment for the plaintiff in the sum of \$900 without costs, which judgment was paid and judgment satisfied.

16541. *Frank K. Stearns v. George H. Brown, Mayor.*

16542. *Charles H. Hanson v. Same.*

16543. *Thomas P. Boulger v. Same.*

Entered in Superior Court, 1909.

These were petitions to the Superior Court brought under section 4 of chapter 100 of the Revised Laws for a review of the charges of the evidence submitted thereunder and of the findings thereon by the Mayor of Lowell, in a proceeding in which the several petitioners were removed from office by said Mayor as members of the Board of Police. On behalf of the Mayor I filed a motion to dismiss the proceedings on the ground of lack of jurisdiction. Mr. Justice Dana, before whom the cases were heard overruled my motion and found for the petitioners.

To his ruling, by order of the Mayor, I filed exceptions and also appealed.

256. *Dennis E. Conners v. City of Lowell.*

This was an action to recover under the statute, certain sums of money paid to the City Treasurer for tax titles which were alleged to be defective by reason of errors, omissions and informalities in the assessment and sale of the land. The writ was dated June 1, 1909, and returnable to the Police Court of Lowell the first Saturday of July, 1909. I agreed to judgment for the plaintiff in the sum of \$14.79 together with costs amounting to \$8.82 which was paid.

William G. Gardner v. City of Lowell.

This was an action of contract to recover the sum of \$300. The writ was dated April 20, 1909, and returnable to the Police Court of Lowell the fourth Saturday of May, 1909. The case was not entered in Court.

350. *James F. Naughton v. City of Lowell.*

This was an action to recover under the statutes certain sums of money paid to the City Treasurer for tax titles which were alleged to be defective by reason of

errors, omissions and informalities in the assessment and sale of the land. The writ was dated August 5, 1909, and returnable to the Police Court of Lowell the second Saturday of September, 1909. I agreed to judgment for the plaintiff in the sum of \$16.38 together with costs amounting to \$10.64 which was paid and judgment satisfied.

GRADE CROSSINGS (1910) Equity.

1957.

1992.

Petition of the Mayor and Board of Aldermen to the Superior Court asking for the appointment of a commission to consider the advisability of a change of grade where the railroads now operated and controlled by the Boston & Maine Railroad and the Boston and Northern Street Railway cross the following streets at grade, viz: Middlesex Street westerly of the Northern Station, Western Avenue and Fletcher Street. Pending.

2483. *Athanasios Stravopoulos v. City of Lowell.*

This was a petition presented to the land court by Athanasios Stravopoulos to register and confirm his title in the following described land.

A certain parcel of land with the buildings thereon situated in said Lowell bounded and described as follows: Southwestery by Market Street about 47 feet;

northwesterly by Hanover Street by two lines, 64.5 feet, and 30.62 feet. Northwesterly by land now or formerly of Joseph S. Chalifoux, and by land now or formerly of Susanna Wyman, 52.25 feet; and southerly by land now or formerly of Margaret Keyes, 94.5 feet. It was agreed that a decree be entered confirming and establishing the petitioner's title to the land corresponding to the plan filed by said petitioner, and thereon marked as "Deed line" which line is 2.25 feet more or less distant easterly or northeasterly from the line shown on plan as the street line of Hanover Street. In all other respects it is hereby agreed that the title of said petitioner may be registered as petitioned for.

1770. *Wm. H. Fuller, et al, v. James H. Walker, et al. Equity*

This was a petition in Equity by ten taxable citizens of the City of Lowell for an injunction to restrain said city and Andrew G. Stiles, its treasurer from paying any money upon or under an alleged contract and from allowing defendant to continue the construction of the foundation work of the Washington School. The court referred the case to Melvin G. Rogers, Esq., as master. Sections 21 and 25 of his report are as follows:— Sec. 21. Instead of the city doing the necessary blasting for the foundation of the defendant Walker did the blasting and was paid for it as extra, according to the terms of the contract, at the rate of \$3 per perch, and he used part of the stone so blasted by

him. A portion amounting to 100 perch with the permission of the defendant Smith in constructing the footings and foundation walls without making any allowance to the city therefor. The stone so blasted belonged to the city, since the lot from which they were taken was the property of the city. Their value on the premises to anyone building a foundation there like that built by the defendant Walker would be at least \$3 per perch. Sec. 25. "The work done under the contract was done as follows:— The different portions of the work being described in the order in which they appear in the specifications.

EXCAVATION.

In digging the trenches for the walls and footings defendant Walker did not remove all the free cobbles and other stone as required by the specifications, but left them in the trenches. By reason of his failure to remove the free cobbles and other stones from the trench the defendant Walker effected a saving of \$100 in the cost of the work. The failure to remove these stones most of which were boulders imbedded in the ground and projecting above the bottom of the trenches did not materially injure the footing.

REFILLING.

Instead of refilling back of the walls with gravel or sand defendant Walker refilled with material excavated on the premises which was neither sand nor gravel but

soil in the nature of clay. Refilling in this way would not materially diminish the value of the work of the city but defendant Walker saved by reason of his deviation from the contract, \$60.

The defendant Walker did not construct the foundation wall entirely of block granite as required by said building ordinance and specifications, as I construe said ordinance and specifications. Not over one quarter of the wall was constructed of block granite. Many of the stones have slanting beds although the actual laying out of the stone with slanting bed cost more than laying stone without slanting beds, the shaping of the stone to within one inch of being rectangular involves an increased expense greater than the amount saved by laying stone without slanting beds. By reason of the deviation in the construction of the foundation wall from the requirements of the contract by using stone that could not be laid without slanting beds because they were not cut to within one inch of being rectangular, defendant Walker effected a saving of \$540 in the cost of the wall, exclusive of the saving on account of the using of stone blasted on the premises."

The meaning of the above findings of the master is that said Walker on account of his deviation from the terms of the contract, was not entitled to recover the full contract price of his work, \$6500 but \$1000 less than that sum. The master's report was adopted by

all parties interested and Walker was paid \$5500 by the city, which he received in full settlement of his claim.

Helen E. Esterbrook v. City of Lowell.

This is an action of tort to recover the sum of \$5000 brought in the Superior Court by Helen E. Esterbrook a minor under the age of twenty one years, plaintiff, who brings this action by her mother and next friend, Minnie M. Esterbrook. The writ is dated January 11, 1910, and returnable to the Superior Court the first Monday of March, 1910.

17117. *William J. Green v. City of Lowell.*

This is an action of contract brought by the plaintiff to recover the sum of \$899.66 alleged to be due him for services rendered as callman in the fire department of the City of Lowell. The writ was dated October 4, 1909, and returnable to the Superior Court the first Monday of December, 1909. Pending.

In the following cases no changes have been made during the past year.

3032. *Bragg Manufacturing Co. (U. S.Ct.) v. City of Lowell.*

274. *Peter Curran v. City of Lowell.*

869. *Bernard Delaney et al, v. City of Lowell.*

1151. *Patrick O'Hearn v. City of Lowell.*

922. *James Smith et al, v. City of Lowell.*

8911. *Thomas Curley v. City of Lowell.*

LEGISLATION.

Bill Amending Eight Hour Law applicable to Public Employees

On March 3 and 4, 1909, by direction of the Board of Aldermen, I appeared before the committee on Labor in opposition to this bill. The bill was reported, passed the house and senate and was vetoed by the Governor.

Bill to provide for the Pensioning of School Teachers.

On March 11, 1909, by direction of Board of Aldermen I appeared before the Committee on Education in opposition to the bill. Petitioners were given leave to withdraw.

Bill to Prohibit Pollution of the Merrimack River.

On March 30, 1909, I appeared before the Committee on Public Health in opposition to this bill. The committee voted leave to withdraw. Petitioner then offered a substitute bill in place of committee's report. This was referred back to the Committee, who then reported a bill, with the features objectionable to the City of Lowell eliminated, which passed and was enacted into law.

Bill making Water Bills a lien on Real Estate.

On January 31, 1910, at the request of the Superintendent of Water Works, I appeared before the Committee on Legal Affairs in favor of this measure. There was some doubt as to its constitutionality as drawn, and on this ground the committee voted leave to withdraw.

Bill Relating to Military Drill in the Public Schools.

At the request of the High School Committee I drew this bill and it was submitted to the legislature on petition of Dr. Lamoreaux, Chairman of the School Committee and others. Its purpose is to make military drill in the schools compulsory except in certain well defined cases. On February 1, 1910, I appeared before the Committee on Education in favor of the bill. It was reported by the committee and is now in process of enactment.

Bill Permitting City Councils to Submit Matters to the Voters at Special Elections called for the Purpose.

This bill provided that any matter before a city council might be submitted to the voters either at a special or general election. I opposed it on the ground that a strong city government would not need to so submit questions before them for consideration, and

that a government composed of inefficient men would have continual recourse to such a test in order to avoid the responsibility placed upon them by the people, thereby causing the city considerable additional expense annually. The hearing was before the Committee on Cities, February 3, 1910, who later voted the petitioner leave to withdraw.

Bill for the Abolition of Sixth Class Licenses.

At the request of the Police Commission, I appeared before the Committee on Liquor Laws, February 18, 1910, in opposition to this bill. The purpose of the bill was to take away druggists' licenses for the sale of liquor for medicinal, mechanical and chemical purposes. The committee voted leave to withdraw.

Bill for the Separation of First and Fourth Class Licenses.

On February 21, 1910, at the request of the Mayor, I appeared before the Committee on Liquor Laws in opposition to this bill on the ground that its passage probably would mean a loss of \$43,000 a year to the City of Lowell, without any compensating gain from the standpoint of better moral conditions. The committee voted leave to withdraw.

Bill providing for appeal to the Superior Court by Police Officers removed by the Police Commission.

On February 23, 1910, at the request of the Police Commission I appeared before the Committee on

Public Service in opposition to the bill. It was referred to the next General Court.

Bill relating to the apportionment and distribution of Taxes.

On February 25, 1910, I appeared, by direction of the City Council, before the Committee on Taxation in favor of this bill. Its passage would mean an increase in the city's income of \$105,000 a year. The committee reported leave to withdraw.

Bill relating to construction of a Highway between Lowell and Lawrence.

On February 28, 1910, I appeared by direction of the Board of Aldermen, before the Committee on Roads and Bridges in favor of this measure. The committee have not yet reported.

LIST OF OPINIONS SINCE FEBRUARY 28, 1909.

-
- March 12. Alderman John D. Turner, Chairman,
Committee on Accounts.
Authority of City Council to control wages
of employees in various departments.
-
- March 13. H. W. J. Howe, Secy. Board of Charities.
Appointment of District Physician.
-
- April 27. Board of Assessors.
Taxation of land belonging to Y. M. C. A.
-
- May 1. Board of Police.
Power of Board to license motor taxicabs.
-
- May 4. Hon. George H. Brown, Mayor.
Vote of City Council necessary to pass
order over mayor's veto.
-
- June 1. Board of Aldermen.
Legality of action of Police Commissioners
in granting pension to Superintendent
Moffatt.

- June 5. A. G. Stiles, City Treasurer.
Description of tax deed.
-
- June 14. Committee on Streets.
Construction & Maintenance of Cabot St.
bridge.
-
- June 15. Board of Aldermen.
Provisions for expense of street watering by
annual appropriation.
-
- June 15. Alderman J. F. Connors.
Obligation of city in care and maintenance
of bridges.
-
- June 16. H. W. J. Howe, Esq., Secy. Board of
Charities.
Concerning alcoholic cases sent to city farm
by Police Department.
-
- June 23. Board of Assessors.
Taxation of land occupied by Boston &
Lowell Railroad.
-
- June 24. Board of Police.
Licenses for stands on South Common.

- July 13. James Dow, Ins. of Buildings.
Duties of Inspector of Buildings.
-
- Sept. 14. A. K. Whitcomb, Supt. of Schools.
Definition of "Minor." Legality of Superintendent's bill of expense.
-
- Sept. 15. F. A. Bates, Agent, Board of Health.
Appointment of Inspector of Milk.
-
- Sept. 23. Hon. George H. Brown, Mayor.
Powers of Police Board in appointment of Acting Superintendent.
-
- Nov. 4. Alderman Tyler A. Stevens.
Payment of services to newly appointed License Commissioners after reinstatement of old board.
-
- Nov. 11. J. W. Crawford, Clerk of Water Board.
Relating to the City's property in Chelmsford.
-
- Nov. 29. Board of Police.
Common Victualler's license.

- Dec. 7. Hon. George H. Brown, Mayor.
Legality of Superintendent of School's
bill of expense.
-
- Dec. 8. S. L. Mayberry, Supt. of City Farm.
Disposition of products at City Farm.
-
- Dec. 13. Board of Police.
Licenses to dealers in ice-cream, confection-
ery, etc. on Lord's Day.
-
- Dec. 27. Board of Police.
Payment of services to newly appointed
License Commissioners after reinstatement
of old board.
-
- Feb. 10. Board of Charities.
Care and maintenance of feeble-minded
children having settlement in Lowell.

Respectfully submitted,

WM. W. DUNCAN,

City Solicitor.

LIST OF JURORS

FOR THE

CITY OF LOWELL

FOR THE YEAR 1910



PRINTED BY C. I. HOOD CO., LOWELL, MASS.

LIST OF JURORS.

A

Abbott, James M. 24 Fairmount St., broker.
Abbott, John W. 12 Fremont St., tinsmith.
Abell, Orrin W. 20 Osgood St., printer.
Abels, Alexander M. 43 Nicollet St., merchant.
Achin, Henry Jr., 90 Aiken St., insurance agent.
Adams, Asbury F. 36 Third St., meat market.
Adams, Charles F. 90 Fremont St., asst. paymaster.
Adams, George F. 105 Gates St., overseer.
Adams, John M. 511 School St., painter.
Adams, Walter S. 13 Read St., machinist.
Adie, John P. 26 So. Whipple St., printer.
Aldrich, William K. 24 Leroy St., manufacturer.
Alexander, Jesse 197 White St., clerk.
Alexander, J. Walter 774 Moody St., clerk.
Allard, Albert, 39 Fourth Ave., lunch cart.
Allard, Joseph J. 114 Ennell St., storekeeper.
Allard, Simon 67 Varney St., shoe cutter.
Allen, Charles O. 79 Warwick St., receiving teller.
Allen, Otis 270 Gibson St., dentist.
Alley, Andrew J. 12 Barclay St., patternmaker.
Amadon, Fred C. 53 Washington St., clerk.
Anderson, John W. 233 Stevens St., bookkeeper.
Andrews, John A. rear 11 So. Whipple St., leatherworker.
Appleton, Francis E. 59 Pine St., paymaster.
Archambault, Amédee 742 Merrimack St., undertaker.
Arnold, William A. 401 Beacon St., bookkeeper.
Ashton, John T. 60 Orleans St., secondhand.
Ashworth, George L. 110 Westford St., clerk.
Atherton, Charles S. 17 Wilson St., clerk.
Atwood, William P. 17 Nineteenth St., chemist.
Austin, Fred A. 86 Branch St., shoemaker.

B

Bagshaw, Charles H. Wedge cor. Lura St., manufacturer.
Bailey, Frank E. 33 Canton St., wholesale beef.
Baker, E. Garfield 22 Livingston Ave., contractor.
Baker, J. Avison 103 South Loring St., music teacher.
Baldwin, Francis G. 374 Beacon St., dealer.
Baneroft, John J. Jr., 14 Alder St., cashier.
Barnard, Virgil G. 68 Harvard St., treasurer.
Barnes, Henry W. 30 Huntington St., tailor.
Baron, Charles C. 88 Eleventh St., public accountant.

Barrett, Andrew E. 77 Mt. Vernon St., grocer.
Barrett, Charles H. 158 Sayles St., painter.
Barrett, Edward J. 94 School St., grocer.
Barris, William J. 62 Jenness St., mill overseer.
Barry, Patrick H. 294 Wentworth Ave., liquor dealer.
Bartlett, Arthur 370 Beacon St., civil engineer.
Bartlett, Joseph O. 37 Hastings St., operative.
Bartlett, Walter E. 523 Fletcher St., merchant.
Barton, Cyrus 78 South Walker St., general contractor.
Bassett, Cyrus R. 90 Andrews St., farmer.
Batchelder, Mark O. 650 Stevens St., overseer.
Batchelder, William H. 887 Andover St., farmer.
Bateman, John F. 39 Robbins St., surveyor.
Beals, Horace P. 84 Marlborough St., lumber business.
Beals, Laforest 154 Eleventh St., coal and cement.
Bean, Deniel F. 15 Eighth Ave., shoe manufacturer.
Bean, Frank S. 26 Eleventh St., produce.
Bean, Howard C. 15 Eighth Ave., director.
Bean, Ralph M. 15 Eighth Ave., secretary.
Beane, Thomas J. 104 Pleasant St., life insurance.
Beaulieu, John H. 202 Hildreth St., storekeeper.
Beaumier, Joseph 1 West Tenth St., clerk.
Beauregard, Oliver J. 22 Wiggin St., grocer.
Belanger, Charles A. 200 Cumberland Rd., printer.
Belanger, Clovis 768 Merrimack St., newspaper publisher.
Bell, Frank A. 17 Wachusett St., machinist.
Bellefontaine, Miller 130 Riverside St., furniture dealer.
Bennett, George A. 51 Marshall St., foreman.
Bergeron, Albert rear 502 Moody St., master baker.
Bernard, Ernest A. 476 Moody St., barber.
Bernard, Joseph A. 190 White St., music teacher.
Bertrand, Arthur M. 22 Middle St., merchant tailor.
Bibeault, Alfred 2-88 Ford St., grocer.
Biggs, John 576 School St., carpenter.
Billingsby, Fred 178 Concord St., liquor dealer.
Bishop, Herbert L. 28 May St., paymaster.
Bissell, William E. K. 47 Methuen St., clerk.
Bissonnette, Frank H. 56 Third Ave., clerk.
Bissonnette, John 47 Mt. Washington St., painter.
Bissonnette, Jos. M. 64 Cabot St., meat cutter.
Bissonnette, Zephyrin J. 60 Third Ave., telegrapher.
Bixby, Albert J. 80 D St., machinist.
Bixby, Newton 61 Bartlett St., slasherman.
Blake, William J. 17 Shedd St., clerk.
Blessington, John B. 53 Second Ave., foreman.
Blodgett, Emery F. 585 Chelmsford St., bookkeeper.
Blood, Cyrus F. 222 High St., Everett pl., clerk.
Booth, Walter 322 East Merrimack St., fruit dealer.
Boisvert, Jacques 363 Hildreth St., builder.
Bosworth, George A. 256 School St., gardener.
Boucher, Thomas E. 65 Hampshire St., clerk.
Boudreau, Henri 746 Lakeview Ave., clothing store.
Boudreau, John B. 24 Crawford St., grocer.
Boulais, Arthur N. 8 Dracut St., grocer's clerk.
Boudron, Michael 94 Ford St., carpenter.
Bourque, Philip R. 80 Cabot St., carpenter.

Bourret, Charles C. 32 Campaw St., master plumber.
 Bowen, Frank A. 43 Gates St., superintendent.
 Bowen, James 16 Albion St., laborer.
 Bowers, Duncan V. rear 445 Lawrence St., grocery store.
 Box, John W. 7 Lyon St., belt maker.
 Boyle, James H. 110 Congress St., conductor.
 Boyle, John L. rear 110 Congress St., machinist.
 Boyle, Thomas H. 715 Bridge St., liquor dealer.
 Bradley, Albert rear 1017 Central St., pool room.
 Bradley, Raymond D. 62 Rock St., teamster.
 Bradt, David H. 125 Mt. Vernon St., prop. bakery.
 Bradt, Gerritt J. 523 Fletcher St., prop. bakery.
 Brady, Peter J. 16 So. Highland St., merchant.
 Brady, Thomas 198 Mammoth Road, manager.
 Brassill, Dennis 58 Walnut St., operative.
 Brazer, Ralph F. 46 Fairmount St., merchant.
 Breen, John P. 9 Lyon St., loomfixer.
 Brennan, Owen E. 20 Crowley St., hardware dealer.
 Brien, James A. 124 Westford St., furniture dealer.
 Brissette, Rupert N. 62 Inland St., clerk.
 Brock, Greenleaf C. 118 First St., druggist.
 Brogan, Frank M. 74 Bowers St., insurance.
 Brooks, James S. 261 Mammoth Road, grocer.
 Brothers, George W. 62 Royal St., treasurer gas co.
 Brown, Charles W. 812 Stevens St., asst. paymaster.
 Brown, Milon D. 295 Central St., cigar dealer.
 Bruce, Clinton L. 41 Bowers St., manufacturer, plasters & medicine.
 Bryant, Fred A. 62 Pine St., musician.
 Buckley, George 190 High St., gas fitter.
 Buckley, John 305 Summer St., bookkeeper.
 Burbank, John E. 29 Anne St., merchant.
 Burbank, Percival P. 14 Eighth Ave., periodicals.
 Burgess, Edwin 120 Billerica St., plumber.
 Burke, Edward H. 112 Lewis St., machinist.
 Burke, Edward N. 216 Nesmith St., retired.
 Burke, Michael 205 Lakeview Ave., fireman.
 Burkinshaw, Joseph 18 Bellevue St., druggist.
 Burns, George E. 61 Eighteenth St., clerk.
 Burns, Charles H. 69 Fourth St., barber.
 Burns, Edward 84 Pleasant St., wool sorter.
 Burns, James F. Jr. 427 Lakeview Ave., machinist.
 Burns, John J. 607 Westford St., dry goods merchant.
 Burrill, John F. 612 Beacon St., clerk.
 Burt, Walter N. 385 Walker St., clerk.
 Butler, Otis W. 109 Methuen St., manufacturer.
 Byam, Arnold A. 97 Fourth St., real estate.
 Byam, Otis 79 Canton St., milk dealer.
 Byrne, Patrick J. 571 East Merrimack St., coachman.

C

Caddell, James 115 Fowler Road, plumber.
 Cadorette, Joseph 619 Lakeview Ave., mason.
 Cady, George L. Jr. 150 Mt. Vernon St., box maker.
 Cady, Harry F. 577 School St., real estate.
 Caisse, Wilfred Jr. 793 Moody St., druggist.

Callahan, George T. 27 Beech St., advertiser.
Callahan, Philip H. 82 Beacon St., painter.
Cameron, Alexander C. 39 Lamb St., carpenter.
Campbell, Abel R. 28 Bellevue St., real estate.
Campbell, Frank J. 104 Westford St., druggist.
Campbell, George 10 West 5th St., grocery clerk.
Cannon, Michael F. 220 Thorndike St., printer.
Carmichael, James H. 165 Fort Hill Ave., overseer.
Caron, Albert J. 4 Robert St., clerk.
Caron, Horace E. 53 Austin St., telegrapher.
Carpenter, Henry 27 Ellis Ct., shipping clerk.
Carpenter, W. Irving 28 South Whipple St., fish dealer.
Carpetier, Henry 67 West Meadow Road, shoecutter.
Carr, Walter W. 9 Rhodora St., asst supt. M. P. W.
Carrier, Joseph 2 Dracut St., clerk.
Carrigg, John J. 39 Third St., stage manager.
Carrill, Daniel F. 118 South Highland St., master plumber.
Casey, Thomas P. 87 Moore St., foreman.
Casey, James B. 214 Thorndike St., manufacturer.
Cassidy, John J. 263 Thorndike St., machinist.
Cassily, Edward C. 14 Livermore St., shaver.
Caswell, John A. 81 Gates St., optician.
Cavanaugh, Simon A. 98 Andover St., real estate.
Cawley, Edward 85 Rogers St., coal dealer.
Cawley, William F. 85 Rogers St., clerk.
Chadwick, Alfred M. 87 Fort Hill Ave., assistant agent.
Chambers, John H. 942 Central St., teamster.
Chapman, Robert J. 53 Tolman Ave., overseer.
Charlton, Richard 538 Westford St., clerk.
Charron, Edmond J. 28 Howard St., machinist.
Chase, Frederick A. 19 Nesmith St., librarian.
Chase, Howard 237 Foster St., machinist.
Chase, Walter I. 353 Walker St., clerk.
Chatfield, Frank B. 334 Stevens St., bookkeeper.
Cheney, James E. 8 Bagley Ave., pattern maker.
Cheney, Edmund J. 116 Grove St., barber.
Chevalier, Edward 539 Moody St., grocer.
Childs, Edward L. 82 Warwick St., overseer.
Choate, Albert H. 509 Beacon St., drug clerk.
Choquette, Jeremie A. 89 Butterfield St., clerk.
Choquette, Joseph 772 Moody St., clerk.
Clark, James 1-62 Congress St., stone cutter.
Clark, Marion S. 203 Gibson St., clerk.
Clark, T. Frank 103 Pleasant St., clerk.
Clay, Henry 31 Race St., teamster.
Cleary, Daniel 47 Swift St., master plasterer.
Clement, Charles M. 295 Foster St., carpenter.
Clifford, Charles T. 99 Westford St., dentist.
Clifford, Everett A. 20 Lane St., clerk.
Clifford, Robert H. 848 Bridge St., census clerk.
Cluin, John J. 130 Fort Hill Ave., jeweller and optician.
Clune, Peter A. 53 Thirteenth St., solicitor.
Coburn, Clarence G. 735 Varnum Ave., retired.
Coburn, Harry W. 145 Beacon St., dentist.
Coburn, Joseph V. B. 215 Mammoth Road, grocer.
Coburn, Laurens W. 48 Varney St., clerk.

Coburn, Walter S. 28 Mt. Washington St., manufacturer.
Cochran, Robert 50 Hanks St., dyer.
Coffey, Timothy J. 21 Marginal St., grocer.
Cogger, John H. 80 White St., printer.
Cogger, Patrick 438 Riverside St., teamster.
Cogger, William 82 Park View Ave., advertising.
Coggeshall, Fred H. 38 Nichols St., clerk.
Cognae, Emery 729 Moody St., clerk.
Cole, John W. 14 Fairfield St., restaurant.
Coleman, Joseph H. 65 Fulton St., painter.
Collins, Cornelius A. 124 Dummer St., painter.
Collins, Cornelius E. 394 High St., real estate and insurance.
Commerford, Edward J. 16 Wiggin St., bartender.
Conant, Arthur J. 237 East Merrimaek St., grocer.
Conant, Charles H. Jr. 19 Nesmith St., bank clerk.
Conant, Frederick 617 Westford St., lumber clerk.
Conant, George W. 27 Burt St., machinist.
Conant, Herbert J. 16 Grove St., clerk, B. & M. R. R.
Condon, John H. 96 Midland St., janitor.
Conley, Leander F. 69 Tolman Ave., overseer.
Connolly, Michael H. 86 School St., insurance agent.
Conroy, Robert F. 17 Kirk St., manager.
Constantineau, Felix J. 180 Ford St., dealer.
Conway, Anthony A. 11 Meadowcroft St., dealer.
Cooke, Charles E. 182 Smith St., elevator operator.
Coon, Orville E. 405 Westford St., watchmaker.
Cooney, Dennis J. 55 Elm St., liquor dealer.
Corbett, John H. 14 Burns St., provision dealer.
Corcoran, Joseph F. 40 Fort Hill Ave., printer.
Corliss, Ammi L. 9 Methuen St., sexton.
Cossette, P. Napoleon 9 Common Ave., real estate.
Corwin, Harry J. 25 Huntington St., advertising manager.
Cote, Louis 98 Aiken Ave., clerk.
Cotton, Arthur W. 1 Barton Ave., machinist.
Coughlin, Jeremiah 359 Concord St., gardener.
Couzoules, George 509 Market St., vice-consul and steamship agent.
Cox, Frederick 183 Richards St., city employee.
Cox, Terrence J. 239 Stackpole St., barber.
Craig, Joseph 73 Congress St., foreman switch tower.
Crevier, Charles 88 Mt. Washington St., blacksmith.
Crosby, Frederick H. 111 Moore St., plasterer.
Cross, Winfield 33 Seventh St., janitor.
Crowley, Patrick H. 226 Fletcher St., laborer.
Crowley, Robert E. 115 Fort Hill Ave., real estate.
Crowley, William L. 453 Riverside St., clerk.
Crysler, H. Stanley 258 Gibson St., manager.
Cuff, John H. 18 Agawam St., ambulance driver.
Cuff, Thomas F. 18 Agawam St., dentist.
Cull, John H. 84 Chapel St., printer.
Cunningham, Clarence 37 Durant St., steward.
Curry, James 105 Tremont St., steam fitter.
Curtin, Richard J. 514 East Merrimaek St., barber.
Cushing, Michael W. 94 Bridge St., clerk.
Custy, Patrick J. 96 Mt. Washington St., merchant.
Cutler, John S. 840 Varnum Ave., barber.
Cutting, Lawrence F. 78 Methuen St., clerk.

D

Daigneault, Oscar J. 482 Moody St., barber.
Daley, Peter, 203 Broadway, laborer.
Dalton, John J. 55 Nesmith St., clerk.
Daly, Frank W. S. 102 Jenness St., clerk.
Daly, Jeremiah A. 211 Fletcher St., insurance agent.
Daly, John J. 19 North St., operative.
Daly, John W. 76 Andrews St., clerk.
Daly, William F. 48 Mead St., insurance agent.
Damon, William W. 433 Dutton St., machinist.
Dana, Harry C. 365 Worthen St., machinist.
Danahy, John J. 22 Crowley St., tinsmith.
Dane, George F. 53 Oakland St., foreman B. & M. R. R.
Davey, Peter 83 Bartlett St., undertaker.
David, Albert W. 234 Gibson St., clerk.
David, Olier 447 Moody St., ins. agent.
Davidson, William T. 187 Mammoth Road, granite cutter.
Davis, Prentice T. 35 Boynton St., overseer.
Dawson, James 84 South Whipple St., paperhanger.
Dawson, John J. Richardson Hotel, clerk.
Dean, Charles E. 49 Cambridge St., pinmaker.
Dean, Sam 65 Queen St., overseer.
Dean, Simon 1240 Gorham St., butcher.
Dearborn, George W. 85 Vernon St., superintendent.
Delaronde, Charles A. 128 Lilley Ave., clerk.
Delisle, Francois X. 784 Merrimack St., clerk.
Demers, Delphis 31 Barker St., laborer.
Denault, Pierre L. 41 Jewett St., real estate.
Dennis, Edward P. 50 Chelmsford St., retired.
Derby, Lucius A. 148 First St., electrician.
Desilets, Horace 14 Spaulding St., clerk.
Deslandes, Ambrose 65 Branch St., barber.
Desmarais, Philip 56 Claire St., clerk.
Desrosiers, Joseph A. 210 Hildreth St., clothing dealer.
Devine, Patrick F. 67 Park View Ave., manufacturer.
Devlin, James P. 43 Willow St., printer.
Dewar, David W. 364 Beacon St., real estate agent.
Dextra, Joseph 228 Riverside St., barber.
Dickerman, William O. 74 Bellevue St., clerk.
Dickey, Thomas L. 66 Porter Terrace, insurance.
Dickson, Charles E. 198 Methuen St., clerk.
Dickson, David 142 Smith St., tea merchant.
Dillon, John F. 125 Andrews St., teamster.
Dillon, David 67 Gage St., machinist.
Dilworth, Dennis 44 Merrill St., overseer.
Dobson, David J. 51 Willow St., R. R. clerk.
Dobson, Frank W. 148 Andover St., clerk.
Doherty, Joseph B. 114 Agawam St., currier.
Doherty, Henry P. 78 Bridge St., master painter.
Donahoe, Cornelius F. 62 Chambers St., clerk.
Donais, Venant, 540 Moody St., clerk.
Donnelly, James E. 36 Floyd St., blacksmith.
Donnelly, John F. 7 Newhall St., grocer.
Donnelly, John P. 36 Floyd St., blacksmith.
Donohoe, James H. 656 Gorham St., clerk.

Donohoe, Andrew, 49 Keene St., liquor dealer.
 Donohue, Michael J. 3 Brooks St., salesman.
 Donovan, Daniel J. 139 Cross St., provisions.
 Donovan, Michael F. 254 Beacon St., engraver.
 Doran, Daniel 4 Crane Ave., asst. supt.
 Dow, Frank B. 374 High St., hardware dealer.
 Dow, Fred H. 56 Cornell St., foreman.
 Dow, George L. 151 B St., drug clerk.
 Downs, Earl C. 14 Porter St., electrician.
 Dozois, George H. 179 School St., machinist.
 Dozois, Hilaire 179 School St., machinist.
 Drewett, Frank 215 Moore St., clerk.
 Drewett, Sidney 139 Hildreth St., sexton.
 Drinan, George 17 Burlington Ave., machinist.
 Driscoll, Patrick H. 180 Baldwin St., school janitor.
 Drouin, Arthur J. 2-768 Lakeview Ave., drug clerk.
 Drury, Harry S. 44 Hanks St., plumber.
 Dubuque, George H. 22 East Pine St., clerk.
 Duckworth, Thomas 15 Mt. Vernon St., salesman.
 Duff, John J. 19 Burns St., wine clerk.
 Duffy, Michael A. 25 Dutton St., bottler.
 Dumas, Ernest G. 55 Huntington St., manufacturing stationer.
 Duncklee, Fred W. 28 Bowden St., foreman.
 Dunfey, James T. 63 Sixth Ave., auditor's clerk.
 Dunham, Abraham L. 90 Chestnut St., overseer.
 Durstoff, Charles C. 102 South Whipple St., overseer.
 Dwyer, John 12 Oak St., painter.

E

Eames, Melvin 32 West Sixth St., secondhand.
 Eastman, Henry F. 327 Rogers St., mechanical engineer.
 Eastman, Raymond W. 18 May St., carpenter.
 Eaton, Charles W. 108 Myrtle St., banker and broker.
 Elliott, Robert H. 25 Fairview St., real estate.
 Ellis, James W. 83 White St., carpenter.
 Emmott, Walter H. Westford St., cor. Chester, manager.
 Emsley, George 20 Weed St., combmaker.
 Enright, Cornelius F. 295 Thorndike St., master painter.
 Erskine, Charles M. 138 Mt. Vernon St., real estate.
 Estabrook, Howard M. 65 Tolman Ave., meat cutter.
 Ethier, Isidore, 57 Hall St., laborer
 Evans, J. Albert 87 Humphrey St., restaurant.
 Evans, Frederick 9 Blossom St., marble worker.

F

Fagan, Francis M. 18 Newhall St., master barber.
 Fairbanks, William K. 246 Andover St., agent.
 Fairbanks, William M. 31 Hoyt Ave., J. C. Ayer Co.
 Fairburn, George 384 High St., provision dealer.
 Fall, George F. 694 Varnum Ave., teamster.
 Farley, Harry P. 4 Olney St., bottler.
 Farnham, Frederick W. 60 Marlborough St., civil engineer.
 Farrell, Edward F. 12 Third Ave., plumber.
 Farrell, John M. 2 West View St., auctioneer.
 Farrington, John C. 182 Perry St., clerk.

Farrington, Willis 234 Nesmith St., gentleman.
 Faulkner, John A. 52 Mansur St., manufacturer.
 Favreault, William A. 18 Orford St., clerk.
 Fay, Edgar G. 122 Branch St., plumber.
 Fay, Frederick T. 371 East Merrimack St., druggist.
 Fay, George D. 303 Tenth St., bank clerk.
 Fay, Henry J. 70 Lawrence St., retired.
 Fecteau, Alexis F. 742 Merrimack St., clerk.
 Feeney, John W. 493 Moody St., merchant.
 Fels, Max W. 989 Lakeview Ave., manufacturer.
 Fennell, Nicholas J. 178 London St., barber.
 Ferrin, George W. Jr., 41 Grove St., salesman.
 Fife, James 46 Merrill St., machinist.
 Filion, J. Anaclet 348 Hildreth St., jeweller.
 Filteau, Joseph C. 22 Butterfield St., cologne maker.
 Finnerty, Patrick J. 32 Lawrence St., iron smelter.
 Firth, Rylah 57 Midland St., paymaster.
 Fitzgerald, Patrick 169 Broadway, bartender.
 Fitzgibbon, Patrick 238 Appleton St., shoe dealer.
 Flanagan, Edward M. 22 Westford St., checker.
 Flanagan, James J. 186 Pleasant St., clerk.
 Flanagan, Frank P. 22 Westford St., steamfitter.
 Flather, Frederick A. 68 Mansur St., treasurer.
 Fleming, James H. 23-24 Webster St., laborer.
 Fleming, Samuel 35 Methuen St., boot maker.
 Flemings, James F. 91 Fort Hill Ave., salesman.
 Fletcher, Edwin L. 81 Holyrood Ave., grocer.
 Flood, James H. 118 Bartlett St., grocer.
 Flood, Terrence E. 9 Ardell St., carpet weaver.
 Foisey, Joseph A. 327 Hildreth St., baker.
 Folsom, Fred P. 154 Shaw St., clerk.
 Folsom, Henry W. 77 Mt. Vernon St., overseer.
 Forrest, C. Marshall 30 Sanders Ave., lumber dealer.
 Fortin, Antoine 903 Moody St., clerk.
 Foster, Benj. F. 77 C St., secondhand.
 Foster, Fred A. 98 Grove St., overseer.
 Foster, Robert E. 216 Thorndike St., clerk, state house.
 Fox, Russell 359 Beacon St., insurance.
 Foye, Edward H. 127 Durant St., merchant.
 Foye, John J. 23 Burlington Ave., gas fitter.
 Fraser, Allan 13 McKinley Ave., merchant.
 Fraser, James A. 50 Kirk St., engraver.
 Frawley, David F. 1065 Bridge St., glazier.
 Freeman, James E. 83 Andrews St., grocer.
 French, Albert F. 213 Park View Ave., manufacturer.
 French, Arthur J. 35 Victoria St., paper cutter.
 Frye, Austin A. 105 Eighteenth St., druggist.
 Frye, George H. 36 Second St., brick mason.
 Fuller, George B. 1524 Gorham St., lumber man.
 Fulton, Robert S. 27 Myrtle St., clerk.

G

Gagnon, Arthur J. 466 Merrimack St., dentist.
 Gagnon, George 37 Gardner Ave., clerk.
 Gagnon, Joseph A. 37 Gardner Ave., buyer.

Gagnon, Louis 172 Riverside St., clerk.
 Gale, Charles A. 23 Jenness St., manager.
 Gallagher, Charles J. 110 Pleasant St., druggist.
 Gallagher, Edward 300 Wilder St., hotel.
 Gallagher, James J. 168 Cumberland Road, cigar store.
 Gallagher, Peter rear 83 Lakeview Ave., barber.
 Gallagher, Thomas J. 15 Jewett St., watchman.
 Gallagher, William H. 180 Ennell St., clerk City Hall.
 Garland, Arthur W. 27 So. Loring St., railroad clerk.
 Garmon, Joseph A. 76 Nineteenth St., foreman.
 Garvey, Michael J. 203 Broadway, bartender.
 Garvey, Thomas F. 66 Lilley Ave., cigar maker.
 Gates, Royal W. 75 Gates St., belting mfg.
 Gaudette, Octave 44 So. Loring St., wholesale confectioner.
 Gelinas, Victor 15-129 Aiken St., grocer.
 Genest, Arthur, 111 Gershom Ave., contractor.
 Gerow, David 162 Chelmsford St., butcher and grocer.
 Gerry, Edgar A. 27 Humphrey St., messenger.
 Gibson, J. Edward 85 Eleventh St., clerk.
 Gibson, Thomas 27 Cady St., secondhand.
 Gilbert, Arthur D. 173 Foster St., bookkeeper.
 Gilbert, Franz S. 50 Laurel St., overseer.
 Gill, Edmond J. 768 Merrimack St., state house, Boston.
 Gillespie, John T. 110 Durant St., clerk.
 Gilligan, James rear 40 Mead St., currier.
 Gillogley, Owen, 27 Walnut St., machinist.
 Gillon, Hugh F. 84 Bartlett St., newspaperman.
 Gilman, Albert I. 20 East Pine St., foreman.
 Gilman, George S. 1263 Middlesex St., machine business.
 Gilmore, Elbert J. 94 Vernon St., superintendent.
 Gilmore, William J. 89 Middlesex St., second hand.
 Ginty, Philip 1007 Central St., master slater.
 Giroux, Frederick 158 Riverside St., teamster.
 Golden, Thomas A. 17 Riverside Ave., carpenter.
 Goodall, Samuel 7 Houghton St., watchman.
 Goodwin, Chester S. 880 Gorham St., shipper.
 Gookin, James 300 Concord St., furniture business.
 Gookin, John J. 55 Fay St., manager.
 Gookin, Michael F. 485 Andover St., furniture dealer.
 Gorman, James E. 412 Gorham St., shoedealer.
 Gormley, Edward F. 31 Washington St., foreman.
 Gormley, Joseph H. 11 Lyon St., insurance agent.
 Gosselin, Phillippe 51 Mammoth Road, boiler maker.
 Gouin, Lorenzo A. 120 Gershom Ave., printer.
 Goulding, William H. 123 Walker St., retired slater.
 Grady, John J. 10 Sawtelle Place, laborer.
 Grady, William S. 151 Rogers St., liquor dealer.
 Graham, Charles F. 25 Waugh St., electrician.
 Grandchamp, Napoleon C. 12 Arthur Ave., clerk.
 Grant, Alfred T. 99 Mt. Washington St., painter.
 Gray, Andrew A. 19 Tolman Ave., commercial traveller.
 Gray, Arthur L. 71 Dover St., real estate and insurance.
 Gray, Harry 93 Dover St., provision dealer.
 Gray, James H. 23 Ellsworth St., lather.
 Gray, John J. 236 Plain St., real estate agent.
 Gray, Michael J. 10 Kinsman St., clerk.

Green, Albert H. 157 Dartmouth St., selling agent.
 Green, Thomas A. 512 Gorham St., laborer.
 Greene, Harvey B. 73 Marlborough St., florist.
 Greenwood, Othello O. 180 Hale St., grocer.
 Gregg, John 112 Jackson St., overseer.
 Griffin, Warren T. 113 So. Walker St., merchant.
 Grover, Charles F. 80 Sherman St., division supt. tel. co.
 Grover, Herbert E. 128 Third St., barber.
 Groves, Frank A. 53 Thirteenth St., bank teller.
 Guild, Albert S. 26 Arlington St., banker and broker.
 Guild, W. Scott 25 Damon St., foreman Cartridge Co.
 Guimond, Adelard 80 Cambridge St., brakeman.
 Guimond, Albert F. 823 Moody St., knitter.
 Guimond, Amedee 101 Aiken Ave., knitter.
 Gumb, Harry M. 14 Bowden St., granite dealer.
 Guyton, Patrick H. 159 Mammoth Road, salesman.

H

Haines, Olin M. 18 Upham St., machinist.
 Hale, Milo W. Jr. 9 Glidden Ave., clerk.
 Hall, Thalles P. 149 Stackpole St., park commissioner.
 Halloran, Daniel C. 546 East Merrimack St., gardener.
 Halloran, David H. 167 Pleasant St., liquor dealer.
 Halstead, Charles W. 47 Methuen St., elec. lt. station.
 Hamel, Alfred 144 Pawtucket St., baggagemaster.
 Hamilton, Thomas H. 6 Brown's Ct., plumber.
 Hamlin, Charles E. 90 Fourth Ave., electroplater.
 Hanchett, Frank 89 Harvard St., dealer.
 Hansbury, James W. 29 Hastings St., machinist.
 Hanson, James S. 584 Westford St., horse dealer.
 Hardy, William 16 Pollard St., engineer.
 Harmon, Almon 24 Hildreth St., clerk.
 Harnois, Alfred 472 Moody St., agent.
 Harrigan, William H. 38 South Walker St., collector.
 Harrington, John H. 2 Park St., newspaper publisher.
 Harris, Arthur W. 111 Myrtle St., none.
 Harrison, Harry 19 B St., machinist.
 Hart, Daniel J. 52 Colonial Ave., master baker.
 Hartwell, Charles C. 109 Fourth Ave., clerk.
 Harvey, Joseph 843 Moody St., master plumber.
 Haings, James S. 20 Barclay St., storekeeper.
 Hawes, William H. 59 Canton St., broker.
 Hayes, Jeremiah J. 66 Walker St., overseer.
 Haynes, Frank H. 430 Wilder St., wire manufacturer and banker.
 Hayward, Charles S. 16 Corson St., secondhand.
 Hebert, Samuel P. 23 Adams St., grocer.
 Heery, Luke M. 15 Bertha St., retired.
 Hemman, Richard C. 245 Stevens St., cashier.
 Hennessy, Joseph 46 Common St., machinist.
 Henry, James T. 51 Tenth St., clerk.
 Hersey, Freeman S. 137 Forrest St., machinist.
 Hersome, Albra W. 49 Andover St., stationary engineer.
 Hetu, Hermidas 12 Dane St., second hand.
 Hickey, Cornelius L. 1012 Central St., electrical worker.
 Higgins, Patrick 17 Walnut St., machinist.

Higgins, Wesley R. 82 Read St., painter.
 Hill, James 37 Whipple St., motorman.
 Hill, Matthew G. 87 Stratham St., shoe sorter.
 Hilliard, Asa B. 15 Ware St., foreman.
 Hinekey, William E. 698 Westford St., electrician.
 Hird, David 12 Blodgett St., wool sorter.
 Hoar, Martin J. 35 Bowden St., folder.
 Hoar, Patrick J. 16 Chase St., barber.
 Hobson, Charles H. 164 Holyrood Ave., president and treasurer.
 Hodgson, William H. 33 England St., upholsterer.
 Hogan, Daniel E. 30 Fort Hill Ave., real estate and insurance.
 Hoisington, Charles F. 68 Thirteenth St., stove dealer.
 Holden, George B. 363 Walker St., clerk.
 Holgate, Benjamin 28 Grove St., accountant.
 Holmes, Charles W. 153 Varnum Ave., cabinet maker.
 Hoole, Henry 66 Bartlett St., machinist.
 Hooper, George L. 7 Belmont St., insurance.
 Horan, John B. 109 Market St., carpenter.
 Horner, John P. 353 Westford St., manufacturer.
 Hosmer, Samuel 88 Cambridge St., supt. Lowell ter. cor.
 Howe, Edward S. 981 Varnum Ave., farmer.
 Howe, Walter H. 315 Summer St., real estate.
 Howe, Will H. 105 Jenness St., paymaster.
 Howell, Wakefield D. 69 Nichols St., clerk.
 Hoyle, Albert 124 Mt. Hope St., plumber.
 Hubbard, George L. 332 Varnum Ave., real estate agent.
 Humphriss, Frederick G. 19 Crowley St., watchman.
 Hunnewell, John A. 54 Harvard St., superintendent.
 Hunt, Gilbert W. 661 Chelmsford St., teamster.
 Hunt, Leonard D. 234 Cabot St., overseer.
 Hunt, William F. 88 12th St., foreman.
 Huntington, Edward W. 218 Moore St., clerk.
 Hurd, Carl P. 22 Hoyt Ave., broker.
 Hurd D. Glen, 97 Durant St., inventor.
 Hyde, Daniel 24 Hampshire St., machinist.
 Hyde, John J. 178 Pleasant St., toolmaker.

I

Iatros Michael 20 Cornell St., editor.
 Ingalls, George W. 334 Boylston St., bookkeeper.
 Inglis, John J. 102 Beech St., clerk.
 Ireland, Willard F. 775 Broadway, machinist.
 Irwin, John M. 83 Pine St., confectioner.

J

Jalbert, Joseph 100 Fourth Ave., contractor.
 Jameson, James A. 139 Concord St., machinist.
 Jean, Albert E. 246 Cabot St., bank teller.
 Jeffers, George B. 995 Central St., operative.
 Jennison, George H. 378 East Merrimack St., dentist.
 Jodoin, Augustus J. 28 Campaw St., operative.
 Johnson, Francis 494 Lawrence St., real estate.
 Johnson, Franklin E. 215 Foster St., teller.
 Johnson, Michael J. 328 Suffolk St., organist.

K

Keables, Nelson D. 14 Hoyt Ave., mechanical supt.
 Kearney, John 142 Third St., inspector.
 Keefe, George F. 101 Beech St., stablekeeper.
 Keefe, James 453 Lawrence St., barber.
 Kelley, John A. 58 West Third St., painter.
 Kelley, Thomas F. 578 Andover St., clerk.
 Kelley, William A. 799 Princeton St., Lowell water works.
 Kelley, William M. 32 John St., janitor.
 Kendall, Amos 12 Washington St., stonecutter.
 Kennedy, James J. 31 Marion St., liquor dealer.
 Kennedy, William R. 114 Warwick St., electric lt. trimmer.
 Kerwin, Edward 36 Royal St., plumber.
 Keyes, Charles F. 79 Sherman St., auctioneer.
 Killpatrick, Samuel W. 1057 Middlesex St., restaurant keeper.
 Kilpatrick, John 107 South Loring St., carpenter.
 Kilroy, John 104 Lawrence St., insurance agent.
 King, Arthur F. 9 Fay St., merchant.
 Kinghorn, David, 33 West Meadow Road, bookkeeper.
 Kingsbury, John M. 1087 Bridge St., meat market.
 Kirby, Charles P. 16 Walnut St., machinist.
 Kittredge, Eugene O. 34 Third Ave., engineer.
 Kittredge, Horace V. 34 Third Ave., mason.
 Knowlton, Harry W. 549 Westford St., draughtsman.

L

Labrie, Eugene 2-103 Tucker St., baker.
 Iaflamme, Gerdia J. 29 Queen St., clerk.
 Laflamme, Sidney I. 29 Queen St., collector.
 Lafleur, Frederick 37 Second Ave., barber.
 Lambert, Maurice J. Jr., 94 Wannalancit St., manager.
 Lamoureux, Auseline 78 Mt. Washington St., tailor.
 Lamoureux, Frederick A. 52 Mammoth Road, hardware dealer.
 Lamson, Nathan P. 11 Porter St., bank clerk.
 Landry, Adelard 68 Mt. Hope St., bartender.
 Lang, William A. 719 Chelmsford St., draughtsman.
 Lannan, Dennis H. 182 Merrimack St., clerk.
 Lavallee, Henry 75 Gershom Ave., jeweler.
 Lavallee, Joseph M. 20 Lombard St., clerk.
 Lawson, William S. 194 Nesmith St., manufacturer.
 Langevin, Felix D. 37 B St., machinist.
 Latour, Peter 15 Gershom Ave., loomfixer.
 Laurin, Carl G. 40 Lundberg St., stonecutter.
 Lavery, James A. 238 Pine St., baker.
 Lavoie, Arthur 1 Regina Place, grocer.
 Lawler, Thomas H. 153 Fort Hill Ave., stationer.
 Lawless, Augustine J. 70 Pleasant St., asst. superintendent.
 Lawrence, Abbott, 53 Berkley Ave., jeweller.
 Laycock, John W. 21 Ellsworth St., engineer.
 Leary, Daniel M. 423 High St., dyer.
 Leary, Dennis J. 786 Broadway, machinist.
 Leary, Sanford P. 11 West Chester St., carpenter.
 Leavitt, George E. 20 Lombard St., foreman.
 Leary, Jeremiah F. 18 Brown St., janitor.
 L'Ecuier, Joseph Hector 8-502 Moody St., clerk.

Lee, Bernard F. 6 Dane St., foreman.
 Lee, Michael A. 64 Bartlett St., carpenter.
 Lee, Thomas C. 455 High St., life and fire insurance.
 Leighton, James H. 41 Sixth St., insurance.
 Lelacheur, Jean B. 199 Mt. Hope St., merchant tailor.
 Lennon, Thomas E. 84 Mt. Washington St., liquor dealer.
 Leonard, Terrance D. 86 Andrews St., clerk.
 Lewis, Edward J. 45 Abbott St., painter.
 Lewis, Fred O. 47 Oakland St., druggist.
 Libby, Charles F. 69 Robbins St., superintendent.
 Libby, Oliver C. 399 Stevens St., printer.
 Libby, David D. 162 Sanders Ave., carpenter.
 Light, Daniel 9 Kimball Ave., gardener.
 Litch, Joseph W. 586 Bridge St., clerk.
 Little, Edwin F. 815 Moody St., stock broker.
 Livingston, Cornelius S. 208 Branch St., paymaster.
 Long, Dennis A. 610 Andover St., publisher.
 Long, Osmond 92 Jenness St., bookbinder.
 Loranger, Louis 37 Bowers St., clerk.
 Lorrain, Wilfred C. 180 A St., printer.
 Loupret, Napoleon J. 278 High St., photographer.
 Luce, Ransom H. 24 Clifford St., beltmaker.
 Lull, George E. 11 Nesmith St., merchant.
 Lunan, Albert E. 16 Varnum St., ice cream maker.
 Lundberg, Frank G. 44 Fay St., laundryman.
 Lussier, Rosario 83 Lilley Ave., clerk.
 Lussier, William O. 6 Morey Place, Salem St., machinist.
 Lynch, Michael J. 15 Second Ave., janitor.
 Lyons, John K. 7 Westford St., pin maker.

M

MacBrayne, Lewis E. 6 Belmont St., journalist.
 Mack, Martin T. 18 Lenton Ct., lunch cart prop.
 MacKenzie, Daniel W. 505 Wilder St., salesman.
 Maguire, Hugh 62 West Third St., bartender.
 Maguire, John E. 35 Mead St., ins. agt.
 Maguire, Thomas F. 22 Varney St., solicitor.
 Mahon, Thomas 116 West Sixth St., engineer.
 Mahoney, John J. 35 Sutherland St., printer.
 Major, Frank A. 60 Rea St., secondhand.
 Mangan, Thomas J. 74 Chambers St., bleachery.
 Manseau, J. Calixte, 172 School St., furnishings.
 Manseau, Vidal Z. 269 Appleton St., clerk.
 Mansfield, George F. 306 Wilder St., bookkeeper.
 Mansfield, William S. 12 White St., preserves.
 Mansur, William L. 30 Clitheroe St., clerk.
 Marchand, Joseph P. 18 Sargent St., machinist.
 Marden, Philip S. 11 Fairview St., editor.
 Marden, Robert F. 68 Clark Road, reporter.
 Markham, Michael J. 142 Chapel St., liquor dealer.
 Martell, Arthur J. 477 Moody St., music teacher.
 Martell, Hormidas J. 799 Moody St., supt. wire works.
 Martin, Edward F. 543 Gorham St., grocer.
 Martin, Mizael, 2-500 Moody St., tailor.
 May, Thomas 23 School St., gate tender.

Maynard, Myron A. 63 Norcross St., overseer.
McAleer, James E. 129 Llewellyn St., clerk.
McAleer, Michael 29 Chestnut St., carder.
McAllister, Melvin F. 75 Fort Hill Ave., shipping clerk.
McAloon, Fred F. 14 Pleasant St., weaver.
McAloon, John B. 112 Sixth St., weaver.
McAloon, William F. 321 High St., musician.
McAlvin, Henry J. 1012 Lakeview Ave., clerk.
McCaffrey, John H. 186 Pleasant St., carpet weaver.
McCaffrey, Thomas 251 Fayette St., laborer.
McCann, Arthur 981 Central St., insurance agent.
McCann, Patrick 412 Lincoln St., dresser.
McCarthy, Thomas 15 Harrison St., musician.
McCarthy, James F. Jr., 28 Butterfield St., clerk.
McCurdy, Albert G. 295 Stevens St., printer.
McDaniels, Walter H. 437 East Merrimack St., manufacturer.
McDonald, Joseph A. 402 Mammoth Road, produce dealer.
McElholm, William H. 465 Westford St., plumber.
McEvoy, Patrick 109 Powell St., furniture finisher.
McGauvran, William H. 656 Bridge St., clerk.
McGilly, Patrick 112 Concord St., wool sorter.
McGlinchey, Jeremiah 48 Chapel St., liquor dealer.
McGlynn, James 229 Christian St., motorman.
McGovern, Patrick 16 Livermore St., shoe clerk.
McGregor, Fred G. 275 Foster St., auctioneer.
McHugh, Michael 73 Fletcher St., clerk.
McHugh, William E. 31 Nineteenth St., carpenter.
McIntire, George E. 605 Wilder St., machinist.
McIntosh, George A. 90 Chestnut St., mechanic.
McKeon, James E. 184 Chelmsford St., clerk.
McKinnon, Murdock 17 Bleachery St., marketman.
McLaughlin, Edward P. 654 Bridge St., Lowell electrotype foundry.
McMahon, Frank 539 Chelmsford St., machinist.
McMahon, Joseph F. 456 Chelmsford St., plumber.
McMaster, Frank E. 5 Blodgett St., carpenter.
McNabb, James S. 106 Pleasant St., laundryman.
McNabb, John H. 108 Pleasant St., laundryman.
McOsker, Thomas F. 23 Huntington St., cashier.
McQuaid, Arthur F. 246 Concord St., loomfixer.
McQuaid, Michael 65 Pleasant St., laborer.
McQuesten, Albert W. 118 D St., clerk.
Mealey, Frank L. 509 School St., stencil cutter.
Meehan, Edward J. 289 Concord St., teamster.
Mellor, George H. 366 Westford St., overseer.
Mercier, Louis, 141 Meadow Road, merchant.
Merrill, Frank M. 156 Tenth St., selling agent.
Merritt, William H. 262 Concord St., drummer.
Mevis, George B. 58 Methuen St., clerk.
Miller, Joseph 34 Bellevue St., treasurer.
Miller, Joseph H. 284 Fletcher St., clerk.
Mitchell, James W. 79 Mt. Washington St., carpenter.
Monahan, Patrick R. 38 West Fifth St., teamster.
Mongeau, George E. 444 Fletcher St., merchant.
Morin, Joseph U. 812 Merrimack St., merchant.
Morris, Thomas F. Jr. 1098 Bridge St., druggist.
Morse, Robert A. 347 Dutton St., shipping clerk.

Muldoon, Thomas 427 Lincoln St., laborer.
 Mullaney, Michael 483 Broadway, plumber.
 Mulligan, Thomas J. 92 Pleasant St., newspaper.
 Mullin, Joseph 232 Moore St., merchant.
 Murphy, Frank B. 348 Wilder St., ins. and real estate.
 Murphy, James A. 82 Hanks St., overseer.
 Murphy, Jeremiah F. 165 Mt. Hope St., liquor dealer.
 Murphy, Thomas F. 189 Parker St., plumber.
 Murray, Frank 86 Fourth Ave., blacksmith.
 Muzzey, Walter L. 25 Fort Hill Ave., salesman.
 Myers, James W. 104 South Whipple St., clerk.

N

Naylor, Charles 250 Wentworth Ave., chemist.
 Neale, Elisha J. 349 Beacon St., treasurer Thompson Hardware Co.
 Nelson, George A. 3 Astor St., civil engineer.
 Nolan, John H. 117 Fulton St., janitor.
 Normandin, Charles 12 Decatur St., tailor.
 Normandin, Zephirin A. 767 Merrimack St., clothing dealer.
 Novell, Maurice H. 3-449 Moody St., barber.
 Noyes, Fred M. 62 Lane St., railroad clerk.
 Nugent, Michael 13 L St., operative.

O

Oates, William 30 Crawford St., machinist.
 O'Brien, Daniel J. 90 Park View Ave., clerk.
 O'Brien, John J. 399 Worthen St., foundryman.
 O'Brien, Patrick 175 Broadway, laborer.
 O'Connor, John J. 298 Riverside St., contractor.
 O'Connor, Maurice 635 Market St., laborer.
 O'Connor, Michael J. 900 Gorham St., clerk.
 O'Dowd, Henry J. 388 High St., carriage dealer.
 O'Dwyer, Jeremiah J. 148 Midland St., conductor.
 O'Flahavan, James Colonial Ave., cor. Plymouth, real estate.
 O'Hare, Frank 29 Bassett St., bartender.
 O'Hare, James 27 Ellsworth St., teamster.
 O'Hare, John P. 167 Warren Ct., carpet weaver.
 O'Hearn, Patrick 282 Riverside St., contractor.
 O'Heir, Octavien G. I. 68 Lane St., merchant.
 O'Meara, William H. 9 Harrison St., printer.
 O'Neil, Cornelius 750 Merrimack St., clerk.
 O'Neill, John H. 290 East Merrimack St., tinsmith.
 O'Neill, John J. rear 39 Lilley Ave., operative.
 Ort, John J. 26 Broadway, blacksmith.
 O'Shea, Michael 213 Concord St., machinist.
 O'Sullivan, Humphrey 105 Butterfield St., mfg. rubber heels.
 O'Sullivan, James, 105 Mt. Washington St., shoe dealer.
 O'Toole, John 86 Sherman St., salesman.

P

Paige, Charles D. 45 Thirteenth St., auditor.
 Palmer, Forrest E. 51 Osgood St., bookkeeper.
 Palmer, Samuel B. 394 Beacon St., produce dealer.
 Paradis, J. Horace 23 Bellevue St., clerk.

Paradis, Jean M. 29 Orford St., bartender.
 Paradis, Peter 70 Royal St., barber.
 Park, Albert S. 28 Riverside St., ambulance driver.
 Parker, Arthur W. 306 Pine St., gardener.
 Parker, Charles A. 13 Second St., painter.
 Parker, Percy 880 Broadway, capitalist.
 Parker, Stanley M. 712 School St., clerk.
 Parthenais, David A. 30 Phillips St., clerk.
 Patten, Henry N. 235 Mammoth Road, bookkeeper.
 Patten, William T. 235 Mammoth Road, provisions.
 Pearson, Fred H. 216 Foster St., shoe merchant.
 Pelletier, Ephrem 133 School St., real estate.
 Peltier, Edmund, 792 Moody St., laborer.
 Peltier, Willis J. 799 Moody St., jeweler.
 Penn, William Henry 262 London St., builder.
 Perham, Charles P. 30 Edson St., wholesale beef.
 Perham, George L. 53 Lamb St., provisions.
 Perham, Haven C. 19 Wannalancit St., treasurer.
 Perley, George E. 37 Varney St., bank clerk.
 Perrault, David 20 Fernald St., jeweler.
 Person, Nils 82 London St., carpenter.
 Peters, William B. 16 Bryant St., clerk.
 Pevey, James A. 366 Walker St., prop, foundry.
 Phaneuf, Louis N. 467-10 Moody St., inspector charity board.
 Phelps, Archibald H. 50 Lamb St., machinist.
 Pickering, H. Edward 4 Bertram St., manager knitting mill.
 Pickering, Samuel A. 34 Hastings St., carpenter.
 Pihl, Carl G. A. F. W. E. 45 Fay St., foreman.
 Pilling, Frederick A. 217 Wilder St., foreman.
 Pilling, John B. 1199 Middlesex St., shoe manufacturer.
 Pinder, Albert L. 457 Lawrence St., carpenter.
 Plummer, Rufus W. 39 Norcross St., engineer.
 Poirier, George 11 Willie Ave., inspector.
 Pollard, Harry G. 96 Mansur St., merchant.
 Potter, William H. 251 Gibson St., cigar and tobacco dealer.
 Powers, John T. 52 Claire St., clerk.
 Pratt, Orestes M. 1767 Middlesex St., lumber dealer.
 Preble, George A. 96 Fort Hill Ave., secondhand.
 Preston, Charles R. 335 Thorndike St., civil engineer.
 Preston, James F. 403 Andover St., treasurer.
 Prince, Arthur D. 5 Simpson St., merchant.
 Proctor, Charles S. 187 Hovey St., paper dealer.
 Pucell, Joseph A. 123 Lakeview Ave., salesman.
 Putnam, Addison 325 Rogers St., merchant.
 Putnam, Alonzo 19 Eighth Ave., salesman.
 Putnam, Frank E. 1210 Middlesex St., restaurant proprietor.
 Putnam, Lewis A. 19 Eighth Ave., clerk.

Q

Queenan, Eugene C. 5 Harrison St., clerk.
 Quigley, John M. 49 Liberty St., teamster.
 Quinn, John J. 62 Brookings St., moulder.
 Quinn, Michael 14 Fort Hill Ave., fruit dealer.
 Quinn, Thomas F. 30 Weed St. steam fitter.
 Quirbach, Henry C. 142 Gorham St., cigar maker.
 Quirk, William 185 Adams St., laborer.

R

Racette, John 32 Pawtucket St., manufacturer.
 Rafferty, Michael T. 36 Cedar St., hack driver.
 Rafter, Thomas B. 12 Walker St., motorman.
 Ramsdell, Daniel W. 94 D St., foreman.
 Randlett, Fred M. 110 Westford St., fish dealer.
 Ranlett, Orrin B. 2d 95 Sanders Ave., grocer.
 Ray, George H. 17 Oak St., upholsterer.
 Read, George G. Jr. 14 Belrose Ave., grocer.
 Read, William A. 228 Liberty St., tea and coffee merchant.
 Ready, William B. 32 Phillips St., barber.
 Reagan, William 1165 Lawrence St., grocer.
 Reardon, Patrick 95 Dummer St., laborer.
 Redding, Daniel 45 Adams St., grocer.
 Redmond, James J. 3 Masterson's yard, clerk.
 Regan, Michael J. 21 Clare St., motorman.
 Reid, William 7 Calvin St., carpet weaver.
 Reidy, Martin H. 172 School St., manager Lowell Sun.
 Reilly, Peter W. 137 Hovey St., printer.
 Reynolds, Bernard 174 Fourth Ave., barber.
 Rhodes, Arthur A. E. 524 Westford St., hairdresser.
 Rhodes, Benjamin 12 Oaks St., manufacturing.
 Ricard Francois Xavier, 420 Fletcher St., jeweler.
 Richards, Edward S. 794 Merrimack St., brakeman.
 Richards, John B. 770 Moody St., clerk.
 Richards, Joseph L. 794 Merrimack St., knitter.
 Richards, Lyman H. 129 Crawford St., carpenter.
 Richardson, Charles F. 112 Jenness St., agent.
 Richardson, Edward J. 75 Moore St., clerk.
 Richardson, Joseph S. 58 Lamb St., belt maker.
 Richburg, William H. 13 Robert St., shoe cutter.
 Riddick, Herbert C. 201 Smith St., clerk.
 Riley, Charles 65 Chestnut St., barber.
 Riley, Luke J. 134 Merrimack St., room 10, barber.
 Riley, Philip 124 High St., mattress maker.
 Roach, Henry A. 158 Mt. Vernon St., retired.
 Robert, Vital, 33 Fifth Ave., carpenter.
 Robertshaw, Henry 33 Warnock St., wool sorter.
 Robertson, John L. 470 Andover St., furniture dealer.
 Rodden, William J. 219 Varnum Ave., engineer.
 Rogers, John F. 29 Cedar St., undertaker.
 Rooney, John J. 151 Cabot St., superintendent.
 Roper, George A. 335 Walker St., travelling auditor.
 Rountree, Alexander E. 96 Wentworth Ave., salesman.
 Rousseau, Donat 195 Salem St., clerk.
 Rousseau, Napoleon C. 160 Hall St., merchant.
 Rowland, Charles T. 5 Belmont St., wholesale grocer.
 Royal, Garrett G. 362 Broadway, operative.
 Runels, George H. 240 Gibson St., real estate.
 Russell, James B. 59 Nesmith St., clerk.
 Russell, John L. 17 Victoria St., manager.
 Ryan, Albert J. 61 Bellevue St., real estate.
 Ryan, Jeremiah 779 Westford St., tinsmith.
 Ryan, Patrick J. 1 Goward Ct., clerk.

S

Sabourin, David 15 Perrin St., pattern maker.
Safford, Arthur T. 30 Talbot St., engineer.
Salmon, Edward A. 18 Phillips St., overseer.
Sanborn, Fred W. 44 Fred St., carpenter.
Sanborn, Warren F. 260 Mansur St., foreman.
Sanderson, George W. 173 Stackole St., clerk.
Sargent, George A. 49 Andover St., lineman.
Sarre, Leon E. 842 Varnum Ave., picture framing.
Saunders, Arthur W. 94 Twelfth St., shuttle manufacturer.
Saunders, Thomas A. 325 Mammoth Rt., undertaker.
Sawyer, Orrin A. 134 Walker St., inventor.
Seannell, Bartholomew 535 Westford St., boiler maker.
Scoble, Joel M. 118 London St., diamond setter.
Scott, George N. 238 Chelmsford St., woodworker.
Scribner, George A. 158 Westford St., machinery dealer.
Shannessy, George W. 180 Grand St., wheelwright.
Shaw, Shepard W. 13 D St., salesman.
Shedd, Freeman B. 396 Andover St., real estate.
Sheehy, James 3 Pleasant St., provision clerk.
Shepard, Charles H. 202 Merrimaek St., tailor.
Shepard, Charles S. 254 Park View Ave., steam fitter.
Sherman, Arthur W. 339 Westford St., clerk.
Sherman, Leonard F. 148 Princeton St., shoe manufacturer.
Sherwell, William M. 2 Barton Ave., paymaster.
Sherwood, Frank J. 79 Vernon St., glue manufacturer.
Shields, William H. 627 Chelmsford St., carpet weaver.
Sieard, Armand V. 720 Moody St., shoemaker.
Silcox, Samuel 19 Robert St., machinist.
Silver, Fred W. 94 South Loring St., machinist.
Simpson, John A. 67 Methuen St., mason and contractor.
Smart, Charles E. 104 D St., grocer.
Smith, Charles P. 314 Nesmith St., real estate.
Smith, Chester F. 250 Foster St., travelingman.
Smith, Henry A. 12 Belmont St., insurance.
Smith, Henry 233 Fayette St., barber.
Smith, Jesse J. 1500 Middlesex St., clerk.
Smith, Lorenzo E. 122 Mammoth Road, city employee.
Smith, Omer J. 162 Fourth Ave., laborer.
Smith, Orange V. 22 Leverett St., machinist.
Smith, Thomas M. 55 Seventh St., clerk.
Smithson, Angelo L. 26 Ash St., overseer.
Southam, Brook 13 Cambridge Place, shipper.
Spalding, William B. 1 Centre St., real estate.
Speirs, James A. 715 Chelmsford St., overseer.
Spencer, Charles A. 643 Westford St., sign painter.
Sprague, L. Kirk 120 Sprague Ave., mason.
Stanley, Harry L. 135 Beacon St., coal dealer.
Stanton, John B. 23 Newhall St., wool sorter.
Staples, George N. 31 Hampshire St., clerk.
Stevens, Almon P. 43 Hildreth St., janitor.
Stevens, Oliver, 38 Wentworth Ave., broker.
Stevens, Winslow B. 18 Arthur St., carpenter.
Stevenson, Findlay, 45 Princeton St., retired.
Stewart, John W. 45 Thirteenth St., plumber.

Stickney, Frederick W. 53 Third St., architect.
 Stott, Thomas 209 Nesmith St., manufacturer.
 Stover, Charles L. 209 Nesmith St., manufacturer.
 Stowell, Charles H. 99 Fairmount St., manager.
 Stuart, Frank 79 Fort Hill Ave., engraver.
 Sturtevant, Augustus L. 32 Brookside St., clerk.
 Sullivan, Cornelius 180 Broadway, barber.
 Sullivan, Daniel 99 Andrews St., merchant.
 Sullivan, Eugene P. 84 Maple St., primer.
 Sullivan, Frank J. 45 Wamesit St., clerk, B. & M. R. R.
 Sullivan, John J. 44 Keene St., laborer.
 Sullivan, Martin W. 16 Lagrange St., electrician.
 Swan, Albert J. 23 Congress Ave., druggist.
 Swanson, Alfred 1317 Lawrence St., granite polisher.
 Swapp, Andrew G. 307 Pawtucket St., paymaster.
 Sweatt, Albion 62 Eighteenth St., carpenter.
 Sweet, Melvin O. 157 Shaw St., machinist.
 Sylvester, Walter R. 90 Westford St., patternmaker.

T

Talbot, Harry L. 15 Fairview St., traveling salesman.
 Tansey, John F. 10 Alder St., coachman.
 Taylor, Frederick A. 140 Humphrey St., roofer.
 Taylor, Samuel 12 Chase Ave., watchman.
 Thatcher, William H. 90 South Whipple St., grocer.
 Theriault, Frederick 259 White St., machinist.
 Thissell, Walter F. 109 Mansur St., hardware.
 Thomas, Charles R. 725 Stevens St., upholsterer.
 Thomas, John 45 Tolman Ave., carpet weaver.
 Thompson, James A. 68 Grove St., box manufacturer.
 Thompson, Martin B. 242 Cabot St., overseer.
 Thompson, Perry D. 126 Fort Hill Ave., lumber operator.
 Thompson, Samuel H. 121 School St., hardware store.
 Thomson John A. 89 Eighteenth St., hardware dealer.
 Thorne, John Jr. 15 Coral St., foreman.
 Thorpe, James 100 Riverside St., treasurer Glass Co.
 Thurston, Albert E. 90 Whitney Ave., superintendent.
 Thurston, Charles E. 24 Lane St., teamster.
 Tighe, John 11 Dutton St., insurance agent.
 Tilton, Frederick N. 57 South Walker St., janitor.
 Tilton, George F. 311 Lincoln St., retired.
 Tinker, Clarence C. 6 Astor St., R. R. clerk.
 Toupin, Hercule A. 320 Hildreth St., druggist.
 Tracy, James H. 281 Concord St., laborer.
 Trull, William T. 823 Andover St., manager.
 Tureotte, Homer L. P. 526 Moody St., asst. janitor.
 Tureotte, Louis P. 22 Riverside St., liquor dealer.
 Turgeon, Louis G. 386 Fletcher St., drug clerk.
 Turner, Clarkson H. 23 Perrin St., foreman Gas Co.
 Tyrrell, John E. 483 Lawrence St., provision dealer.

V

Vigeant, Felix 180 Ford St., clerk.
 Vigeant, Paul 48 Riverside St., grain dealer.
 Vigneault, Edmond J. 476 Moody St., clerk.

Vigneault, Rodolphe J. 118 Gershom Ave., foreman.
 Vincent, John 61 Fifth Ave., real estate.

W

Wade, John 51 Pond St., clerk.
 Wadleigh, Jude C. 305 Andover St., mill agent.
 Walker, Edward C. 236 Chelmsford St., machinist.
 Walker, George L. 86 Sherman St., butcher.
 Walker, Hugh G. 18 Pihl St., clerk.
 Walker, John J. 22 Lyon St., janitor.
 Walker, Thomas C. 80 Chestnut St., druggist.
 Washburn, John M. 266 Pine St., salesman.
 Weaver, Frank L. 479 Westford St., gravel roofer.
 Webster, Herbert E. 251 Foster St., salesman.
 Weight, Francis W. 29 Second Ave., machinist.
 Weilbrenner, Arthur 132 Branch St., clerk.
 Welch, Frederick F. 466 Fletcher St., furniture repairer.
 Welch, John 445 High St., plumber.
 Welch, Richard J. 543 Andover St., plumber.
 Welch, William F. 34 Cedar St., carpenter.
 Welcome, Ashley A. 349 Dutton St., second hand.
 Westall, William E. 290 E. Merrimack St., merchant.
 Weston, Charles F. 32 Colonial Ave., belt maker.
 Westwood, John S. 26 A St., druggist.
 Whelan, Charles B. 55 Keene St., clerk.
 Whelton, Matthew 19 Lombard St., wine clerk.
 Whipple S. Foster 40 Berkley Ave., advertising manager.
 Whitecomb, Irving 48 South Walker St., clerk.
 Whitecomb, Winfield, 13 Puffer St., clerk.
 White, Edward C. 291 Concord St., tailor.
 White, John F. 79 Llewellyn St., clerk.
 White, William T. 86 Belmont Ave., manufacturer of leather.
 Whitehead, John T. 22 Wamesit St., blacksmith.
 Whittet, Charles A. 71 Robbins St., superintendent.
 Whittet, David W. 34 Wentworth Ave., carpenter.
 Whittier, Stephen T. 26 Hanks St., paymaster.
 Whitworth, Albert 31 Sidney St., clerk.
 Wibberly, John 1042 Bridge St., bookbinder.
 Wiggin, Burton H. 1010 Middlesex St., contractor.
 Wiggin, Frank B. 16 Canton St., bookkeeper.
 Wilder, Charles W. 291 Wilder St., provisions.
 Wilder, Edward T. 1000 East Merrimack St., teller.
 Wilder, Wesley M. 6 Coral St., hay and grain dealer.
 Wilder, William H. 187 Pleasant St., woolen weaver.
 Wilder, William F. 20 Huntington St., plumber.
 Williams, Henry J. 354 Pine St., engineer.
 Wilson, Charles V. 89 Westford St., foreman.
 Willson, George A. 30 Burtt St., druggist.
 Winn, John J. 29 South Whipple St., mattress maker.
 Wirt, Edward R. 258 Wentworth Ave., salesman.
 Woodworth, Henry P. 15 Hawthorne St., box maker.
 Worthen, George E. Jr. 27 Forrest St., clerk.
 Wotton, Charles A. 26 Loring St., hay and grain dealer.
 Wright, Frank B. 57 Willow St., carpenter.
 Wyman, Randall T. 7 Prince St., lodging house.
 Wyman, Stephen T. 185 Stackpole St., city library.

Y

Young, Charles F. 627 Central St., decorator.

Young, Charles M. 412 Stevens St., undertaker.

JOHN P. FARLEY, Chairman.

J. OMER ALLARD,

HUGH C. McOSKER,

GIRARD P. DADMAN,

Board of Registrars of Voters.

ANNUAL REPORT
OF THE
BUILDINGS DEPARTMENT

... OF ...

LOWELL, MASSACHUSETTS

FOR THE YEAR

1909



LOWELL, MASS.
UNION PRINTING CO.
1910



REPORT

1909

*To His Honor, the Mayor, and Gentlemen of the City
Council of the City of Lowell, Massachusetts:*

GENTLEMEN:—

Complying with the requirements of the building ordinances, I most respectfully submit the following report of the Buildings Department for the year ending December 31, 1909.

Respectfully submitted,

JAMES DOW,

Inspector of Buildings.

BUILDINGS

SALARIES

Appropriations.....		\$4,163 50
Expended as follows		
Inspector.....	\$1,800 00	
Deputy Inspector.....	1,252 00	
Clerk of Department.....	1,111 50	
Totals.....	<u>\$4,163 50</u>	<u>\$4,163 50</u>

LABOR (Carpenters, Etc.)

Appropriations.....		\$7,000 00
Receipts.....		293 68
Expended as follows		
Sundry persons for labor	\$6,725 78	
Transferred to general treasury for another ap- propriation	500 00	
Transferred to general treasury to balance ac- count.....	67 90	
Totals.....	<u>\$7,293 68</u>	<u>\$7,293 68</u>

JANITORS

Appropriations.....		\$2,091 50
Expended as follows		
Janitor at Police Station	\$912 50	
Night man at Police Station	474 75	
Janitor at Memorial Hall	704 25	
Totals.....	<u>\$2,091 50</u>	<u>\$2,091 50</u>

SUNDRIES (Other Expenses)

Appropriations.....	\$7,754 50
Appropriations by transfer.....	500 00
Receipts.....	528 82

Expended as follows for materials

Lumber	\$1,323 93
Paints, oils, glass, etc.....	418 32
Hardware.....	372 54
Water	26 10
Stationery	145 61
Piper's supplies.....	201 47
Mason supplies	36 04
Coal	172 42
Coffin fittings	133 46
Transportation tickets	60 25
Brooms, brushes, washing powder, etc	30 48
Horses.....	246 25
Sleigh and wagon fittings.....	54 00
Miscellaneous stock	7 20
	<hr/>
	\$3,228 07

Other expenses

Electric power.....	\$ 110 34
Board of horses.....	1,009 13
Use of horses.....	4 15
Horse shoeing.....	197 17
Veterinary services.....	26 00
Carriage, wagon and harness repairs	154 70
Machinery and hardware repairs....	69 53
Telephone charges.....	11 94
Roofing repairs, gutters, etc.....	935 67
Plumbing, piping, etc.....	1,721 48
Heating repairs	829 57
Mason work, plastering, etc.....	244 47
Committee entertainment.....	41 85
Lining oat bins.....	65 92
Concreting.....	34 00
Electrical repairs.....	20 18
Repairs, ash hoist, etc.....	21 12
Miscellaneous.....	45 10
	<hr/>
	5,542 32

\$8,770 39

Transferred to general treasury to balance.... 12 93

Totals.....	<hr/>	\$8,783 32	<hr/>	\$8,783 32
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PAINTING CITY HALL

Appropriation, balance brought forward.....		\$662 83
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Note — Appropriation made in 1908 for \$1,500.00. Of this amount \$837.17 was spent in 1908, leaving a balance to be expended of \$662.83.

Expended as follows

Paint stock.....	\$ 49 69	
Kick plates for entrance doors.....	86 90	
Repairing hinges.....	2 00	
Sundry persons labor as per pay rolls.....	524 09	
	<hr/>	
	\$662 68	
Transferred to general treasury to balance account.....	15	
	<hr/>	
Totals.....	\$662 83	\$662 83

NEW CENTRALVILLE FIRE HOUSE

Appropriation, balance brought forward.....		\$7,005 73
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Note — Appropriation made in 1907 for \$36,000.00. Of this sum \$28,994.27 was expended in 1908, leaving a balance to carry over to 1909 of \$7,005.73.

Additional appropriation.....		950 00
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Expended as follows

Carpenter work.....	\$3,202 65	
Sheet metal.....	160 00	
Bell.....	585 00	
Heating.....	758 00	
Plumbing.....	991 80	
Gas fixtures.....	71 70	
Window shades.....	19 80	
Architect.....	256 87	
Paving.....	426 80	
Coal.....	137 21	
Paint stock.....	149 90	
Electric fittings.....	114 61	
Sundry persons labor as per pay roll.....	819 68	
Miscellaneous expenses.....	70 09	
	<hr/>	
	\$7,764 11	
Balance carried forward to 1910.....	191 62	
	<hr/>	
Totals.....	\$7,955.73	\$7.955 73

PUBLIC BUILDINGS REPAIRS AND IMPROVEMENTS

Appropriation	\$12,000 00
Receipts.....	150 00

Expended as follows

Kalsomining and plastering.....	\$ 2,710 81
Mason work	460 35
Paving and concreting.....	977 28
Piping and plumbing.....	989 49
Water heaters	463 65
Heating repairs.....	2,853 09
Lumber, etc.....	239 26
Fuller & Warren closet grates.....	186 00
Bake oven.....	416 50
School furniture	406 70
Gutter	175 00
Weather-stripping windows.....	51 62
Sundry persons labor as per pay rolls.....	2,155 56
Gravel roofing.....	31 00
Hardware	23 83
Drain pipe.....	4 80

\$12,144 94

Transferred to general treasury to balance account	5 06
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Totals.....	\$12,150 00	\$12,150 00
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SHOWER BATH, HOSE 7 HOUSE

Appropriation, balance brought forward.....	\$63 77
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Note—Appropriation made in 1908 for \$350.00. Of this amount \$286.23 was spent during 1908, leaving a balance to be expended of \$63.77.

Expended as follows

Sundry persons as per pay rolls.....	\$63 51
Transferred to general treasury to balance account	26

Totals.....	\$63 77	\$63 77
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LAWRENCE STREET ENGINE HOUSE

Appropriation		\$150 00
Transferred to public building repairs and im- provements	\$150 00	
Totals	\$150 00	\$150 00

SCHOOL HOUSES

GREENHALGE SCHOOL IMPROVEMENTS

Appropriation		\$1,000 00
Expended as follows		
Paving and concreting	\$ 630 87	
Loam	35 25	
Trees	12 00	
Sodding	40 00	
Manure	30 00	
Teaming	15 00	
Lumber and hardware	11 47	
Sundry persons for labor as per pay rolls	121 88	
	\$ 896 47	
Transferred to general treasury	103 53	
Totals	\$1,000 00	\$1,000 00

LABOR (Carpenters, Etc.)

Appropriation	\$11,500 00
Receipts.....	276 81

Expended as follows

Sundry persons for labor as per pay rolls.....	\$10,452 30	
Transferred to general treasury for another appropriation.....	1,000 00	
Transferred to general treasury to balance accounts.....	324 51	
	<hr/>	
Totals.....	\$11,776 81	\$11,776 81

SUNDRIES (Other Expenses)

Appropriation	\$ 9,500 00
Appropriation by transfer.....	1,000 00
Appropriation to balance account.....	140 12
Receipts.....	441 26

Expended as follows for materials

Lumber	\$1,894 48	
Hardware.....	379 44	
Paints, glass, oils, etc.....	1,794 73	
Mason supplies.....	176 08	
Piper's supplies.....	301 90	
Paving blocks and steps.....	322 25	
Miscellaneous	49 64	
	<hr/>	
	\$4,918 52	

Other expenses

Plumbing, piping, etc.....	\$ 885 94	
Heating and ventilation repairs.....	2,582 96	
Electrical repairs.....	135 55	
Repairs to hardware and tools.....	27 90	
Roofing, gutters, etc.....	1,184 34	
Mason work	394 60	
Safety treads.....	191 85	
Concreting.....	293 72	
Electric power	67 95	
Board of horses.....	299 35	
Miscellaneous	98 70	
	<hr/>	
	6,162 86	
	<hr/>	
Totals.....	\$11,081 38	\$11,081 38

NEW BARTLETT SCHOOL GRADING

Appropriation		\$500 00
Expended as follows		
Paving	\$434 55	
Grading	11 25	
Engineering.....	10 14	
Labor as per pay rolls.....	43 00	
	<hr/>	
	\$498 94	
Transferred to general treasury to balance....	1 06	
	<hr/>	
Totals.....	\$500 00	\$500 00

SYCAMORE STREET SCHOOL FLAG POLE

Appropriation		\$70 00
Expended as follows		
Lumber	\$26 78	
Copper ball.....	4 92	
Hardware	3 10	
Labor	35 20	
	<hr/>	
Totals.....	\$70 00	\$70 00

REPAIRS LINCOLN SCHOOL SANITARIES

Appropriation, balance brought forward.....		\$747 08
Note — Appropriation made in 1908 for \$2,150.00. Of this amount \$1,402.92 was expended in 1908, leaving balance of \$747.08 to carry over to 1909.		
Expended as follows		
Plumbing	\$337 64	
Concreting	169 83	
Smoke pipe.....	19 21	
Sundry persons for labor as per pay rolls.....	220 40	
	<hr/>	
Totals.....	\$747 08	\$747 08

RETUBING BOILER AT HIGH SCHOOL ANNEX

Appropriation		\$350 00
Expended as follows		
Retubing boiler.....	\$350 00	
	<hr/>	
Totals.....	\$350 00	\$350 00

NEW HIGHLAND SCHOOL

Appropriation, balance brought forward.....	\$30,752 57
Additional appropriation.....	12,500 00

Note — Appropriation made in 1907 for \$75,000.00. Of this sum \$44,247.43 was spent in 1908, leaving a balance to carry over to 1909 of \$30,752.57.

Expended as follows

Heating	\$ 4,128 91	
Plumbing	3,060 33	
Electric wiring	812 51	
Sheet metal	884 00	
Plastering.....	2,280 00	
Foundation.....	6,122 60	
Carpenter work.....	8,446 28	
Gas and electric fixtures.....	1,000 00	
Retaining walls.....	3,615 00	
Iron fence.....	404 04	
Furniture	2,326 80	
Architect's services	1,054 26	
Teaming	654 25	
Coal.....	586 80	
Window shades.....	101 13	
Blasting	54 00	
Installing power circuit	260 00	
Paint stock	148 34	
Surveying	76 98	
Arbitrators	243 00	
Sewer	1,036 10	
Edgestone.....	156 75	
Sodding	44 53	
Alterations to fire escape	50 00	
Printing and advertising	20 70	
Labor as per pay rolls.....	3,428 59	
Miscellaneous expense	77 80	
	<hr/>	
	\$41,073 70	
Balance carried forward to 1910.....	2,178 87	
	<hr/>	
Totals.....	\$43,252 57	\$43,252 57

SCHOOL HOUSE IMPROVEMENTS

Appropriation, balance brought forward.....		\$1,018 90
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Note — Appropriation made in 1908 for \$4,400.00. Of this amount \$3,381.10 was spent during the year, leaving a balance to bring forward of \$1,018.90.

Expended as follows

Mason work	\$ 251 01
Kalsomining.....	145 50
Plumbing and piping.....	175 97
Heating repairs.....	441 67
Miscellaneous.....	4 70
	<hr/>
	\$1,018 85

Transferred to general treasury to balance account	05
	<hr/>

Totals.....	\$1,018 90	\$1,018 90
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RIFLE RANGE

WAGES

Appropriation	\$626 00
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Expended as follows

Keeper at range	\$626 00
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Totals.....	\$626 00 \$626 00

OTHER EXPENSES

Appropriation	\$174 00
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Expended as follows

Telephone	\$ 40 01
Electrical work.....	24 14
Targets, pasters and supplies.....	91 00
Hardware	5 30
Target paper.....	12 11
	<hr/>
	\$172 56

Transferred to general treasury to balance account	1 44
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Totals.....	\$174 00	\$174 00
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SYNOPSIS

Work done by the Buildings Department during the
year 1909

BUILDINGS

City Hospital and Almshouse — Roofing repairs, new gutters, new water closet, repairs to hot water boiler, plumbing repairs, refrigerator repaired and general carpenter work, brickwork on boilers repaired, plastering throughout institution repaired, new portable bake oven of the Middleby type installed, new arc and inverted gas lights.

Ambulance Stable — Yard filled in with cinders and graded, new gates.

Board of Health — New racks in stable, stall and miscellaneous repairs.

City Hall — Slop bowls in toilet rooms moved to rear of hallways, repiped and fitted so women assistants could do their work without being interfered with or interfering with those using toilet rooms, steam piping in engine and boiler rooms, brickwork on boilers repaired, new cheeks and arches to boilers, new water meter and water piping, finished the painting of building started last year, concreted boiler room area-way and boarded over coal run, new cement floor in boiler room, general repairs throughout building, brass kick plates on all outside and vestibule doors.

City Stables — New gravel roof on stable and repairs to roof of shed, repaired stalls and ventilators, painting, white-washing, fence on roof of shed.

Carpenter Shop — General repairs.

Memorial Building — Steam repairs, electrical and general work, brass kick plates on outside doors.

Police Station — Repaired steam piping, valves, etc., brickwork on boiler repaired, refitted water closet tanks in prison department, screens, general work.

Rifle Range — General repairs, painting targets.

Lighting Station — Sewer work.

Engine 1 House — Painted outside and room on second floor, roofing and general repairs.

Engine 2 House — Painted exterior of building, concrete floor in wagon house and in front of building, general repairs to stalls, etc.

Central Fire Station (Engine 3) — New floor in engine section, painted chief's office, new gravel roof on water tower house, changed water closet, repaired boiler, general repairs to stalls and throughout building.

Engine 4 House — Retubed boiler and repaired brickwork in and around boiler, painted rooms, new doors.

Engine 5 House — Plumbing repairs, new water heater and piping.

Engine 6 House — Repaired roof and woodwork of tower, painted some on interior, edgestones in front of building and concreting in front of building, general repairs.

Hose 7 House — New bath room, shower and water heater, alterations to steam piping, painted interior second story, outside painted.

Hose 8 House — Weather-strips on doors, new lavatory, general repairs.

Hose 9 House — Automatic water heater, water piping and connection heater, repaired brickwork on boiler. Roofing repairs, new floors on second story.

Hose 10 House— Automatic water heater, water and gas piping, retubed steam boiler and repaired brickwork, concreting in front of building.

Hose 11 House— Two automatic water heaters, connecting same, water piping, repairs to bath room, painted inside first story and part of second.

Truck 2 House— New doors on exercise wagon house, painted whole of inside and outside, general repairs.

Protective 1 House— New safety valve on boiler, new flooring and roofing repairs, general repairs.

SCHOOL HOUSES

Old Bartlett— General repairs.

New Bartlett— Reset water closet, changed from old location, retubed one boiler and repaired brickwork on both boilers, new radiator, whitewashed basement, painted outside of building and fence, repaired slate roof, new stone steps, graded and paved yard, concrete walks, removed fence in front of building and put in place a granite curbing, general repairs.

Butler— Repaired gutters and roof, built janitor's room, painted teacher's room, paved and graded yard, painted outside of building and fence, general repairs.

Colburn— Repaired main roof and roofs of porches at entrances, minor repairs to steam piping and plumbing, kalsomined walls of three rooms, painted basement, outside of building, fences and new work, new floor in office, general repairs.

Edson— New tin roof and rebuilt porches, repaired fence, repaired brickwork on boiler, painted basement and new work, general repairs.

Franklin — Plumbing repairs, motor repaired, armature rewound, sheathed all hallways and painted same, new windows, brickwork alterations and repairs, general repairs.

Green — Increased radiation in assembly hall, more circulation in class room on third floor, repairs to steam boiler, some new tubes, brickwork repaired, kalsomined assembly hall and two class rooms, plastering patched, new woodwork around water closets, paved driveway and concreted part of school yard, painting and general repairs.

Greenhalge — Repaired heat and ventilating ducts, new switches, dampers, etc., repaired motor and fan, paved, concreted and graded yard, general work.

Highland — Safety treads on stairs, painted basement, tin roofs, etc., general repairs. Had old building sold (4 room temporary building), and moved from school lot.

High — Repaired copper roofs, repaired fence and painted same, Fuller & Warren furnaces repaired extensively, four new domes and four new fire pots, general repairs.

High Annex — Repaired roof, new line of water pipe in drill shed, repaired brickwork and retubed boiler, new cellar drainer, built two new class rooms, blackboards and furniture for same, general repairs.

Lincoln — Repaired slate roof, repaired furnace, rebuilt chimney, new water service line into building, water closets installed to replace old dry closet syetem in one section, whitewashed basement, painted part of interior, repaired fence, general plumbing and miscellaneous work.

Old Moody — General repairs.

New Moody — New fence, manhole and drain in yard, concrete walks, paved driveway, painted part of basement and also painted fence, entire building kalsomined, new stand pipe for fire service, general repairs.

Mann — New dry well, general repairs.

Pawtucket — Kalsomined several class rooms, reset stone steps and concreted walks in yard, retubed boiler, new mouth pieces, repaired brickwork, new fence, white-washed basement, general repairs.

Riverside — Repaired roof, steam piping repaired, painted basement, repaired brickwork on boiler.

Training — Whitewashed basement, snow guards on roof, concreting yard, fixing over indirect radiators room, covered steam pipes with asbestos, kalsomined hallways and painted basement.

Varnum — Repaired slate roof, rebuilt chimney, repaired boiler, new mouth pieces, painted teacher's rooms and office, whitewashed basement and painted same, repaired fence and painted same.

Agawam Street — Repaired roof, repaired boiler, new castings, whitewashed basement, general repairs.

Ames Street — Kalsomined three rooms, painted and varnished inside, shingled roof, painted basement, fence, etc., repaired brickwork on boiler.

Billings Street — Repaired roof, kalsomined whole building, new galvanized iron gutter around building, painted gutter, graded front yard.

Central Street — Roofing, heating and plumbing repairs, kalsomined whole building, new floor, new fence, white-washed basement, general repairs.

Cross Street — Furnace repairs, rebuilt fence, painted same.

Carter Street — Rebuilt part of dry closets, concrete walks, retubed boiler and repaired brickwork, also new grates, kalsomined part of building, graded and paved yard, painted basement, fence, etc., whitewashed basement.

Chapel Street — General repairs.

Cottage Street — General repairs.

Charles Street — Kalsomined entire building, steam system repaired, whitewashed basement, also painted same and the entire building inside, general repairs.

Cabot Street — Roofing repaired, plaster patched, furnaces repaired.

Cheever Street — Kalsomined the entire building, painted woodwork inside and outside, shingled roof, new fence. Fixed up building in general.

Dover Street — Driveway in yard paved, new concrete walks, whitewashed basement, brickwork on boiler repaired, general repairs.

Favor Street — Kalsomined one room, new galvanized iron gutter, two new radiators and changes to steam system, repaired brickwork on boiler, shower bath in school basement for Park Department.

Fayette Street — New line fence, painted same, miscellaneous repairs.

Grand Street — General repairs.

Howard Street — Patched plastering, new ceilings, ceilings and walls of class rooms and corridors whitened, two new enameled sinks, painted all of inside, new fence, repaired retaining wall, general renovation to whole building.

High Street — Steam piping, increase of radiating surface, recapping chimneys, new fence and retaining wall, general repairs.

Kirk Street — New conductors from roof, new fence and painting same.

Lexington Avenue — Furnace repairs and general work.

Lyon Street — Repairs to steam system, change system of radiation, repairs to boiler, pointed retaining walls along streets front, general repairs.

Lyon Street Annex — Remodelled the entire building, rebuilt part of foundation wall, new gravel roof on ell, new water closets in school part, repaired plumbing, whitened ceilings, fitted up tenement in second story which had not been used at all, thereby giving the city some return.

London Street — Roofing and general repairs.

London Street Annex — General repairs.

Lakeview Avenue — New piazza, painted exterior and interior, kalsomined entire building, rebuilt chimney, new tin roof over piazza, shingled roof. General renovation of building, which is now in first class condition.

Morrill — Increased radiation in one room which could never be heated properly, plastering repaired, new floor in corridors, new line fence, painting.

Mammoth Road Kindergarten — Fifteen windows fitted with metal weather strips, new smoke pipe, general repairs.

Middlesex Village — New sections of indirect radiation in stack, repaired roof, painted building outside, new fence, new porch, new basement double windows, patent weather strips on windows of one class room, new chimney, heating and boiler repairs, general repairs.

Moody Street — Repaired slate roof, new ridge cap, reset stone steps, repaired concrete in yard, kalsomined the entire building, new smoke pipe, general repairs.

Oakland — Repaired furnaces, new grates for dry closets, new flag pole in yard, board walk in yard, whitewashed basement, built janitor's room, new sink in basement, general repairs.

Plain Street — Repaired furnaces, new grates for dry closets, finished up room for janitor in basement, painted some in basement, general work.

Powell Street — Repaired piazza, whitewashed basement, general repairs.

Pond Street—Plumbing repairs, retopped chimneys, repaired slate roof.

Pine Street—Repaired slate roof, concrete walks in yard, one new ceiling and kalsomined walls, repaired Fuller & Warren furnaces, new hot air register, painted part of basement.

Tenth Street—Porch, repaired water closets and laid new floors in same, repaired brickwork on boiler, general repairs.

Worthen Street—New water closets and piping, slate roofing repairs, increased radiation in two class rooms, sheathed up stairway, general repairs.

Weed Street—Kalsomined class rooms and halls, patched plastering, book-cases, two new toilet rooms for teachers, lavatories, water closets, etc., repaired plumbing, repairs to boiler, brickwork, general repairs.

West Sixth Street—Plumbing and heating repairs, shingled roof and general repairs to outside of building, some new flooring laid, painted basement and part of interior, also fence, new radiator in corridor, general repairs.

In addition to the above work, two new public buildings have been completed during the year. I refer to the new fire appartus on West Sixth Street, which will hereafter be known as Hose 12 House, and the new school building on Lang Street in the Highland district which is now called the Washington School. Both these buildings were started in 1908. The Washington School has been occupied since September, while the West Sixth Street Fire House has been occupied only about a month or more. Following is a brief description of both buildings :

Washington School—This building is of brick, two stories and basement, flat roof. The front and sides are quite ornamental while the back is without any ornamentation.

Contains ten class rooms and assembly hall, together with several teacher's, master's, supply and emergency rooms. In the basement are the boys' and girls' play rooms and sanitariums, the boiler, engine and indirect rooms, corridors, etc. On the first floor are six class rooms 32 feet by 26 feet, two emergency rooms, teacher's, master's, supply and clothing rooms; on the second floor are four class rooms, the same size as those on the first floor, with clothing rooms. The assembly hall is also on this floor, it is about 73 feet long by 42 feet wide and has large stage and ante rooms.

The building is heated by the direct and indirect system, that is, there are wall radiators throughout the building and also heat ducts through which hot air is blown into the rooms and corridors, ventilating ducts are also provided.

The building is modern in every respect and very attractive in appearance. The grounds have been partly graded, about two-thirds done, a retaining wall with iron fence has been built along the Lang Street front of the lot. Curbing is now in for side walk on Lang Street. Just as soon as the ground is free from frost, concrete walks should be laid and retaining wall pointed up and completed. There is still a balance to the credit of the appropriation for the building to finish up work I have mentioned, as being incomplete.

West Sixth Street Fire House—This building is of brick, two stories high with flat, tar and gravel roof. The building although without much ornamentation is quite attractive in appearance. It is what is known as a two piece house, that is, it is built to accommodate two fire companies, a hose wagon and ladder truck.

Each company is entirely separate from the other, as much so as though in two separate buildings. A brick wall runs from front to rear of the building dividing it into what might be called two distinct buildings; on one side the truck quarters and the other side the

hose quarters. On the ground floor are the apparatus rooms, hay, grain and harness rooms; on the second floor are the individual sleeping rooms, the recreation and bath rooms. On the hose side, there are six sleeping rooms and on the truck side eight sleeping rooms.

There is also a hose tower $11\frac{1}{2}$ feet square, which rises to a height of 56 feet above roof of main building. In this tower is a 500 pound bell and striker.

The exercise wagon quarters is in the basement. The building is heated by steam, separate boilers being provided for each company.

Just as soon as the Spring arrives a retaining wall will have to be built and the balance of the paving done. This work has been delayed on account of the delay in passing a deed for 200 feet of land additional to widen the driveway.

Table Showing the Amounts Spent on Each Building During the Year 1909

MISCELLANEOUS BUILDINGS	Carpenter Work	Painting Glazing Etc.	Plumbing and Piping	Heating and Ventilating	Roofing Gutters Etc.	Kalsomin'g Plastering Mason Work	Miscellaneous	Total Each Appro.	Total Amt. Spent on Buildings
City Hospital, general appropriation	\$ 180 72	.....	\$ 240 58	\$109 11	\$262 54	.....	\$ 74 26	\$ 867 21	.....
City Hospital, special appropriation	1 25	.....	48 99	8 00	.....	\$305 80	486 27	850 31	\$1717 52
Ambulance Stable, gen. app.....	36 42	\$ 12 54	5 35	.....	.....	.....	20 00	74 31	74 31
Board of Health Bldgs, gen. app..	73 92	4 86	30 31	.....	.....	.....	.....	109 09	109 09
City Hall, gen. app....	163 22	36 56	626 84	269 14	68 84	165 03	77 20	1406 83	.....
City Hall, spec. app.....	7 62	662 68	.....	27 25	.....	.....	101 16	798 71	2205 54
City Stables and Sheds, gen. app..	498 98	90 01	33 06	1 91	357 35	68 27	.....	1049 58	1049 58
City Carpenter Shop, gen. app....	3 50	7 36	.....	99 40	.....	7 45	49 90	167 61	167 61
Memorial Building, gen. app.....	38 45	11 89	4 10	141 18	15 95	.....	71 33	282 90	282 90
Police Station and Stable, gen. app.	102 26	5 94	294 20	68 05	16 31	6 22	20 58	513 56	513 56
Rifle Range, gen. app.....	15 94	36 91	.....	.....	.....	.....	.....	52 85	.....
Rifle Range, spec. app.....	.....	.....	.....	.....	.....	.....	798 56	798 56	851 41
Lighting Station, gen. app.....	.....	.....	.....	.....	.....	.....	6 00	6 00	6 00
Totals.....	\$1122 28	\$868 75	\$1283 43	\$724 04	\$720 99	\$552 77	\$1705 26	\$6977 52	\$6977 52

FIRE HOUSES	Carpenter Work	Painting Glazing Etc.	Plumbing and Piping	Heating and Ventilating	Roofing Gutters Etc.	Kalsomin'g Plastering Mason Work	Miscella- neous	Total Each Appro.	Total Amt. Spent on Buildings
Engine 1, Gorham St., gen. app..	\$ 61 11	\$ 268 78	.....	\$ 33 81	\$ 25 92	.....	\$ 6 80	\$ 396 42	\$ 396 42
Engine 2, Branch St., gen app....	107 63	7 02	\$ 21 74	10 95	.....	.....	.....	147 34	.....
Engine 2, spec. app.....	.....	.....	.....	.....	.....	.....	198 21	198 21	345 55
Engine 3, Palmer St., gen. app...	351 79	53 45	75 50	18 75	61 00	\$ 25 25	34 00	619 74	619 74
Engine 4, High St., gen. app.....	79 24	32 48	2 40	37 25	.....	32 33	.....	183 70	.....
Engine 4, spec. app.....	12 60	5 00	.....	.....	.....	.....	.....	17 60	201 30
Engine 5, Mammoth Rd., gen. app	15 21	6 66	31 90	5 70	.....	21 75	.....	81 22	.....
Engine 5, spec. app.....	.....	.....	123 55	9 45	.....	.....	5 19	138 19	219 41
Engine 6, Fletcher St., gen. app..	76 00	90 19	11 68	.....	42 45	.....	.....	220 32	.....
Engine 6, spec. app.....	.....	.....	.....	.....	.....	.....	76 70	76 70	297 02
Hose 7, Central St., gen. app.	173 14	182 48	549 85	8 00	11 73	109 85	6 30	1041 35	.....
Hose 7, spec. app .....	.....	.....	63 51	.....	.....	.....	.....	63 51	1104 86
Hose 8, Merrimack St., gen. app..	85 56	3 36	19 45	10 00	.....	1 85	.....	120 22	120 22
Hose 9, Lincoln St., gen. app.....	133 03	18 56	13 25	4 80	8 20	26 35	.....	204 19	.....
Hose 9, spec. app.....	.....	.....	138 71	9 50	.....	.....	.....	148 21	352 40
Hose 10, Fourth St., gen. app....	24 17	.....	72 67	146 82	.....	30 85	.....	274 51	.....
Hose 10, spec. app.....	11 55	.....	215 63	23 25	.....	.....	42 27	292 70	567 21

Hose 11, Lawrence St., gen. app..	6 26	306 58	12 08	15 20	40 46	.....	.....	380 58	.....
Hose 11, spec. app.....	.....	.....	448 46	.....	.....	.....	.....	448 46	829 04
Truck 2, Westford St., gen. app..	173 24	180 21	1 30	19 48	.....	24 10	.....	398 33	398 33
Protective 1, Warren St., gen. app.	151 44	5 30	10 40	70 22	39 87	1 51	.....	278 74	278 74
West 6th St. Fire House, gen. app.	156 42	117 66	60	48 01	2 80	.....	83 36	408 85	.....
West 6th St. Fire House, spec. app.	.....	.....	.....	.....	.....	.....	7764 11	7764 11	8172 96
Totals.....	\$1618 39	\$1277 73	\$1812 68	\$471 19	\$232 43	\$273 84	\$8216 94	\$13903 20	\$13903 20

GENERAL WORK

Construction of coffins—stock and labor.....	\$ 497 33
Buildings—stock and labor.....	2994 51
School Houses.....	1439 52
Total.....	<u>\$4931 36</u>

GRAMMAR AND HIGH SCHOOL BUILDINGS	Carpenter Work	Painting Glazing Etc.	Plumbing and Piping	Heating and Ventilating	Roofing Cutters Etc.	Kalsomini'g Plastering Mason Work	Miscellaneous	Total Each Appro.	Total Amt. Spent on Buildings
Old Bartlett, gen. app.....	\$ 23 26	\$ 12 91	.....	\$ 10 34	.....	\$ 3 40	\$ 49 25	\$ 99 16	\$ 99 16
New Bartlett, gen. app.....	104 27	225 85	\$ 89 41	45 02	\$ 24 25	73 85	94 38	657 03	.....
New Bartlett, spec. app.....	.....	286 23	.....	289 90	.....	.....	628 49	1204 62	1861 65
Butler, gen. app.....	112 12	342 34	42 59	60 98	53 80	24 75	173 15	809 73	.....
Butler, spec. app.....	.....	.....	.....	8 70	.....	.....	.....	8 70	818 43
Colburn, gen. app.....	102 78	231 96	34 98	36 84	47 82	50 55	.....	504 93	.....
Colburn, spec. app.....	.....	.....	.....	.....	.....	45 00	.....	45 00	549 93
Edson, gen. app.....	89 94	47 97	17 05	36 13	28 81	67 66	.....	287 56	287 56
Franklin, gen. app.....	55 21	35 37	144 23	3 13	11 68	26 61	49 90	326 13	.....
Franklin, spec. app.....	170 53	62 18	.....	.....	.....	32 59	.....	265 30	591 43
Green, gen. app.....	79 00	36 57	34 90	369 72	9 46	.....	.....	529 65	.....
Green, spec. app.....	.....	47 80	.....	.....	.....	150 50	263 88	462 18	991 83
Greenhalge, gen. app.....	99 37	40 19	25 55	320 49	.....	15 33	73 85	574 78	.....
Greenhalge, spec. app.....	.....	.....	.....	.....	.....	.....	896 47	896 47	1471 25
High, gen. app.....	111 39	28 58	104 13	153 40	137 93	.....	17 63	553 06	.....
High, spec. app.....	.....	.....	.....	869 07	.....	.....	.....	869 07	1422 13
High Annex, gen. app.....	183 83	25 76	312 94	28 00	46 70	60 70	48 32	706 25	.....
High Annex, spec. app.....	353 55	31 88	70 80	838 07	.....	70 50	406 70	1771 50	2477 75

Highland, gen. app.....	\$ 255 94	\$ 34 39	\$ 4 45	\$ 26 74	.....	\$ 19 86	\$ 17 75	359 13	.....
Highland, spec. app.....	.....	55 25	.....	.....	.....	.....	.....	55 25	\$ 414 38
Lincoln, gen. app.....	101 69	53 14	63 41	12 95	\$ 53 30	36 80	.....	321 29	.....
Lincoln, spec. app.....	.....	.....	747 08	542 45	.....	144 33	.....	1433 86	1755 15
Moody (old), gen. app.....	8 30	8 77	.....	3 35	.....	.....	.....	20 42	20 42
Moody (new), gen. app.....	244 92	121 21	47 92	13 62	63 72	14 03	360 40	865 82	.....
Moody (new), spec. app.....	12 60	.....	72 42	37 39	.....	538 84	4 80	666 05	1331 87
Maun, gen. app.....	56 76	11 17	38 32	15 78	55 94	.....	2 13	180 10	180 10
Pawtucket, gen. app.....	93 74	24 42	45 74	69 72	.....	175 98	.....	409 60	.....
Pawtucket, spec. app.....	.....	.....	.....	259 85	.....	150 00	68 89	478 74	888 34
Riverside, gen. app.....	52 39	55 21	13 60	34 55	13 95	8 15	.....	177 85	.....
Riverside, spec. app.....	.....	.....	.....	43 61	.....	.....	.....	43 61	221 46
Training, gen. app.....	106 82	71 93	33 95	212 64	62 79	101 05	10 17	599 35	.....
Training, spec. app.....	.....	.....	.....	.....	.....	120 00	.....	120 00	719 35
Varnum, gen. app.....	80 61	204 02	41 06	16 99	43 05	103 15	32 25	521 13	.....
Varnum, spec. app.....	3 15	.....	.....	140 66	.....	75 38	.....	219 19	740 32
Washington, gen. app.....	45 67	48 04	.....	10 56	.....	125 80	199 90	429 97	.....
Washington, spec. app.....	.....	.....	.....	.....	.....	.....	*41073 70	41073 70	41503 67
Totals	\$2547 84	\$2143 14	\$1984 53	\$4510 65	\$653 20	\$2234 81	\$44472 01	\$58546 18	\$58546 18

*Expenditure in detail see page 20.

PRIMARY AND KINDERGARTEN BUILDINGS	Carpenter Work	Painting Glazing Etc.	Plumbing and Piping	Heating and Ventilating	Roofing Gutters Etc.	Kalsomin'g Plastering Mason Work	Miscellaneous	Total Each Appro.	Total Amt. Spent on Buildings
Agawam Street, gen. app.....	\$ 21 84	\$ 10 75	\$ 1 89	\$ 30 49	\$ 8 65	\$ 64 19	.....	\$ 137 81	137 81
Ames Street, gen. app.....	322 45	51 63	21 75	27 40	.....	15 40	.....	438 63	.....
Ames Street, spec. app.....	.....	71 56	.....	.....	.....	75 00	.....	146 56	585 19
Billings Street, gen. app.....	51 67	14 80	14 81	2 95	15 53	25 35	\$ 63 75	188 86	.....
Billings Street, spec. app.....	81 35	1 56	.....	.....	175 00	135 00	.....	392 91	581 77
Central Street, gen. app.....	188 86	16 68	22 76	100 43	28 40	27 20	.....	384 33	.....
Central Street, spec. app.....	.....	94	.....	.....	.....	180 00	.....	180 94	565 27
Cross Street, gen. app.....	18 19	56 74	.....	.....	.....	.....	.....	74 93	.....
Cross Street, spec. app.....	.....	.....	.....	40 40	.....	.....	18 07	58 47	133 40
Carter Street, gen. app.....	99 61	142 98	.....	181 33	.....	195 70	133 52	753 14	.....
Carter Street, spec. app.....	.....	.....	.....	229 35	.....	281 30	38 90	549 55	1302 69
Chapel Street, gen. app.....	7 44	.....	.....	.....	.....	3 00	.....	10 44	10 44
Cottage Street, gen. app.....	15 05	71	5 76	13 52	.....	5 00	.....	40 04	40 04
Charles Street, gen. app.....	66 31	73 33	30 21	44 35	.....	57 00	.....	271 20	.....
Charles Street, spec. app.....	.....	124 12	.....	.....	.....	150 00	.....	274 12	545 32
Cabot Street, gen. app.....	8 02	1 86	.....	2 55	18 10	22 40	.....	52 93	.....
Cabot Street, spec. app.....	.....	.....	.....	61 28	.....	.....	3 60	64 88	117 81

Cheever Street, gen. app.....	\$ 239 17	\$ 87 72	\$ 4 53	.....	.....	.....	\$ 8 00	.....	\$ 339 42	.....
Cheever Street, spec. app.....	.....	90 00	.....	\$ 3 12	.....	.....	125 00	.....	218 12	\$ 557 54
Dover Street, gen. app.....	30 23	6 10	.....	19 20	.....	.....	18 03	\$ 37 75	111 31	.....
Dover Street, spec. app.....	.....	.....	.....	.....	.....	.....	.....	165 51	165 51	276 82
Favor Street, gen. app.....	90 63	8 54	17 90	164 28	.....	\$124 35	7 96	.....	413 66	.....
Favor Street, spec. app.....	.....	.....	57 47	.....	.....	.....	25 50	.....	82 97	496 63
Fayette Street, gen. app.....	74 82	20 03	9 70	.....	.....	.....	.....	.....	104 55	104 55
Grand Street, gen. app.....	24 62	3 86	7 98	68	.....	.....	.....	.....	37 14	.....
Grand Street, spec. app.....	.....	.....	.....	.....	.....	2 80	.....	.....	2 80	39 94
Howard Street, gen. app.....	50 95	24 98	38 14	.....	.....	.....	13 93	.....	128 00	.....
Howard Street, spec. app.....	49 95	54 88	.....	6 80	.....	.....	116 60	.....	228 23	356 23
High Street, gen. app.....	60 92	66 24	.....	213 51	.....	.....	53 20	.....	393 87	.....
High Street, spec. app.....	.....	.....	19 85	.....	.....	.....	.....	.....	19 85	413 72
Kirk Street, gen. app.....	83 91	25 85	34 94	.....	.....	154 81	43	1 25	301 19	301 19
Lexington Ave., gen. app.....	9 80	4 54	12 35	3 25	.....	.....	.....	.....	29 94	.....
Lexington Ave., spec. app.....	.....	.....	.....	51 55	.....	.....	.....	.....	51 55	81 49
Lyon Street and Annex, gen. app..	364 62	163 13	26 36	219 76	.....	.....	5 71	26 13	805 71	.....
Lyon Street and Annex, spec. app.	314 93	217 10	304 89	.....	.....	37 68	110 68	.....	985 28	1790 99
London Street, gen. app.....	10 96	.....	21 70	4 28	.....	16 65	.....	.....	53 59	53 59

PRIMARY AND KINDERGARTEN BUILDINGS—Continued	Carpenter Work	Painting Glazing Etc.	Plumbing and Piping	Heating and Ventilating	Roofing Gutters Etc.	Kalsomin'g Plastering Mason Work	Miscella- neous	Total Each Appro.	Total Amt. Spent on Buildings
London Street Annex, gen. app...	\$ 4 93	\$ 3 91	.....	.....	.....	.....	\$ 7 63	\$ 16 47	\$ 16 47
Lakeview Ave., gen. app.....	643 93	551 83	\$ 72 66	\$ 44 21	\$ 62 28	\$ 48 46	4 00	1427 37	.....
Lakeview Ave., spec. app.....	1 23	1 56	.....	.....	.....	.....	.....	2 79	1430 16
Morrill, gen. app.....	288 22	41 77	6 67	65 94	14 46	12 73	.....	429 79	.....
Morrill, spec. app.....	41 65	1 41	.....	.....	.....	22 60	.....	65 66	495 45
Middlesex Village, gen. app.....	214 63	275 27	16 83	271 47	17 20	31 20	23 25	849 85	.....
Middlesex Village, spec. app.....	.....	.....	.....	.....	.....	106 68	.....	106 68	956 53
Mammoth Road, gen. app.....	12 10	3 15	.....	.....	.....	.....	.....	15 25	.....
Mammoth Road, spec. app.....	44 00	.....	.....	8 05	.....	.....	.....	52 05	67 30
Moody Street, gen. app.....	30 61	9 17	11 02	2 55	55 47	39 66	.....	148 48	.....
Moody Street, spec. app.....	.....	.....	.....	12 35	.....	225 00	26 20	263 55	412 03
Oakland, gen. app.....	136 31	27 97	45 59	.....	.....	85 13	7 00	302 00	.....
Oakland, spec. app.....	87 85	.....	.....	58 15	.....	.....	18 00	164 00	466 00
Plain Street, gen. app.....	62 17	55 32	5 70	.....	.....	.....	.....	123 19	.....
Plain Street, spec. app.....	.....	.....	.....	70 56	.....	.....	14 40	84 96	208 15
Powell Street, gen. app.....	49 67	10 06	33 04	.....	.....	31 48	.....	124 25	124 25
Pond Street, gen. app.....	11 34	29 61	92 68	6 23	30 70	61 50	.....	232 06	.....

Pond Street, spec. app.....	1 75	.....	.....	.....	.....	.....	.....	1 75	233 81
Pine Street, gen. app.....	13 65	45 31	5 05	.....	36 05	.....	117 85	217 91	.....
Pine Street, spec. app.....	6 30	.....	.....	72 72	.....	85 00	32 00	196 02	413 93
School Street, gen. app.....	.....	19 80	.....	.....	.....	.....	.....	19 80	.....
Tenth Street, gen. app.....	50 22	18 06	25 69	8 84	.....	21 95	2 00	126 76	.....
Tenth Street, spec. app.....	14 70	.....	.....	.....	.....	.....	.....	14 70	141 46
Worthen Street, gen. app.....	68 65	5 37	14 05	213 78	53 90	.....	1 75	357 50	.....
Worthen Street, spec. app.....	.....	.....	.....	75 00	.....	.....	.....	75 00	432 50
Weed Street, gen. app.....	21 29	8 14	60	.....	15 07	10 29	.....	55 39	.....
Weed Street, spec. app.....	157 74	17 50	253 71	.....	.....	20	3 73	432 88	488 27
West 6th Street, gen. app.....	443 12	15 09	89 94	51 43	.....	1 60	.....	601 18	.....
Totals	\$4692 36	\$2480 93	\$1326 22	\$2381 76	\$867 10	\$2505 06	\$746 29	\$14999 72	\$14999 72

CONTRACTS

The following jobs, costing in excess of \$300, were figured in competition and awarded to the lowest bidders : —

City Stables — New roof on City Stables on Broadway; bids opened April 17th, as follows: J. L. Douglas & Co., \$329.00; S. H. Weaver & Son, \$342.00.

On the same date bids were also opened for roofing Water Tower House at the Central Fire Station, as follows: J. L. Douglas & Co., \$53.00; S. H. Weaver & Son, \$60.00. Both jobs were awarded to J. L. Douglas & Co.

New Moody School — Bids were opened July 21st for kalsomin-ing entire building, and were as follows: Lowell Wall Paper Co., \$750.00; Matthias Connor, \$681.00; B. F. Crosby & Co., \$865.00; F. G. Baldwin, \$750.00; Sylvester Bean, \$495.00; A. O. Knapp, \$535.00. Contract was awarded to Sylvester Bean for this work.

New Highland School — Bids were received until July 31st for iron fence and gates in front of building and for retaining walls, steps and granolithic paving along front of building. These were as follows : —

Iron Fence and Gates — Arthur P. Knapp, \$400.00; Chelmsford Foundry Co., \$826.00. Contract awarded to Arthur P. Knapp.

Retaining Walls, Steps and Granolithic Paving — J. A. & E. A. Simpson, \$4,215.00; J. H. Walker, \$5,570.00. Contract awarded to J. A. & E. A. Simpson.

City Hospital and Almshouse — Contract was awarded to the Middleby Oven Company to install a Middleby Portable Oven in the bakery of this institution, to replace an old brick oven. The H. A. Johnson Co. submitted a proposition to install an "Ordway" oven for \$415.00, the city to stand the expense of carting from the freight house, and also to furnish filling and smoke pipe.

The Middleby Oven Company's proposition was to install their oven for \$425.00, without any additional expense to the city. As both ovens are equally good, and the cost of installing practically the same, it was a rather unpleasant proposition to decide, but was finally awarded to the Middleby Oven Company at their figure.

Several other jobs, where the sum did not exceed the \$300.00 limit, were figured in competition, and in each case the work went to the lowest bidder.

PUBLIC BUILDINGS AND SCHOOLS VALUATION

City Hall, granite	\$410,000
Memorial Building, granite	200,000
Police Station, Stable, City Scales and the Public Landing, brick	98,250
Lighting Station, Willie Street, wood	3,000
City Stables, Sheds, Board of Health Stables, City Carpenter Shop and other buildings on both sides of Broadway, stone, brick and wood	100,000
City Hospital and Almshouse, brick and wood	200,000
Rifle Range, wood	14,000

FIRE DEPARTMENT

Engine 1, Gorham Street, brick	27,000
Engine 2, Branch Street, brick	22,000
Engine 3, Palmer Street (Central Fire Station), brick	90,000
Engine 4, High Street, brick	24,000
Engine 5, Mammoth Road, brick	15,500
Engine 6, Fletcher Street, brick	18,000
Hose 7, Central Street, brick	11,000
Hose 8, Merrimack Street, brick	5,000
Hose 9, Lincoln Street, wood	5,500
Hose 10, Fourth Street, brick	15,000
Hose 11 and Truck 1, Lawrence Street, brick	26,000
Hose 12 and Truck 4, West Sixth Street, brick	38,000
Truck 2 and Chemical, Westford Street, brick	18,000
Protective 1, Warren Street, brick	11,000

GRAMMAR AND HIGH SCHOOLS

High, Kirk and Anne Streets, brick, 20 rooms and hall	250,000
High Annex, John and Paige Streets, brick, 16 rooms and drill hall	105,000
Bartlett (old), Clark Street, brick, 8 rooms	25,000

Amount carried forward	\$1,731,250
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Amount brought forward.....	\$1,731,250
Bartlett (new), Wannalancit Street, brick, 16 rooms and hall ..	108,000
Butler, Gorham Street, brick, 12 rooms and hall.....	63,000
Colburn, Lawrence Street, brick, 8 rooms.....	25,000
Edson, Highland Street, brick, 11 rooms.....	25,000
Franklin, Branch Street, brick, 8 rooms.....	25,000
Green, Merrimack Street, brick, 10 rooms and hall.....	105,000
Greenhalge, Ennell Street, brick, 10 rooms and hall	75,000
Highland, Pine Street, brick, 12 rooms and hall	67,000
Lincoln, Chelmsford Street, brick, 12 rooms and hall	77,000
Moody (old), East Merrimack Street, brick, wood ell, 10 rooms	20,000
Moody (new), Rogers Street, brick, 12 rooms and hall.....	80,000
Mann, Broadway, brick, 8 rooms; wood, 12 rooms.....	25,000
Pawtucket, Mammoth Road, brick, 8 rooms and hall.....	53,000
Riverside, Woburn Street, wood, 8 rooms	35,000
Varnum, Myrtle Street, brick, 17 rooms and hall.	110,000
Training, Charles Street, wood, 7 rooms and hall	31,000
Washington, Lang Street, brick, 10 rooms and hall	88,000

PRIMARY SCHOOLS

Agawam Street, wood, 4 rooms	9,000
Ames Street, wood, 4 rooms	9,500
Billings Street, wood, 4 rooms	16,000
Central Street, wood, 4 rooms.	13,500
Cross Street, brick, 4 rooms	24,000
Carter Street, brick, 8 rooms and hall	52,000
Chapel Street, wood, 2 rooms.....	4,000
Cottage Street, wood, 2 rooms	4,500
Charles Street, wood, 4 rooms	20,000
Cabot Street, brick, 4 rooms.	23,500
Cheever Street, wood, 4 rooms	12,000
Dover Street, wood, 4 rooms.....	13,500
Favor Street, brick, 4 rooms.....	28,000
Fayette Street, wood, 2 rooms (unused).....	3,500
Grand Street, wood, 2 rooms	5,000
Howard Street, brick, 2 rooms.....	5,000
High Street, wood, 3 rooms.....	9,000
Kirk Street, brick, 2 rooms.....	18,000
Lyon Street, brick, 4 rooms.	20,000
Lyon Street Annex, wood, 1 room	5,400
Lexington Avenue, wood, 2 rooms.....	10,000
Lakeview Avenue, wood, 4 rooms.....	8,500
London Street, wood, 2 rooms	
London Street Annex, wood, 2 rooms	6,000
Amount carried forward.....	\$3,063,150

Amount brought forward.....	\$3,063,150
Mammoth Road, wood, 1 room	4,000
Morrill, Common Street, brick, 4 rooms	19,000
Middlesex Village, wood, 4 rooms	16,000
Moody Street, wood, 6 rooms.....	20,000
Oakland, Sycamore Street, wood, 2 rooms.....	12,000
Plain Street, wood, 6 rooms	21,000
Powell Street, wood, 2 rooms.....	8,000
Pond Street, wood, 2 rooms	6,000
Pine Street, wood, 4 rooms	23,000
School Street, wood, 2 rooms (unused)	7,500
Tenth Street, wood, 4 rooms.....	9,000
Worthen Street, brick, 5 rooms	25,000
Weed Street, wood, 4 rooms.....	10,500
West Sixth Street, wood, 4 rooms.....	7,000
Old Middlesex Village, wood, (unused)	2,000
Total value of real estate under care of Buildings Department.	<hr/> \$3,253,150

**Estimated value of the property belonging to and in
care of Buildings Department at work shop
on Broadway and in office at
City Hall**

Buildings—shop and store houses	\$11,000 00
Machinery, tools, etc.....	2,875 00
Hardware	75 00
Lumber	450 00
School furnishings	2,325 00
Elections property	3,700 00
Coffins, stock and tools.....	275 00
Stable property	1,500 00
Mason stock and tools	170 00
Pipers' stock and tools	455 00
Painters' stock and tools	950 00
Office property.....	905 00
Total.....	\$24,680 00

BUILDING INSPECTION

Building Operations for the Year Ending December 31, 1909

The number of permits issued during the year compared very favorable with the number issued in previous years. Nine permits more were issued in 1909 than in 1908, and the estimated cost of work exceeded that of 1908 by \$309,772.

As shown in the following tables the number of permits issued for new buildings were 222 for wooden buildings and 17 for brick and fire proof buildings, as against 205 for wooden and 13 for brick and fire proof buildings issued in 1908. This shows an increase over the previous year of 17 for wooden buildings and 4 for brick and fire proof buildings.

For alterations and additions permits were issued for 217 wooden alterations and 50 brick, etc., alterations, against 252 wooden alterations and 27 brick alterations the year previous, thus showing a greater number of alterations for 1908.

The following tables show in detail the number of permits issued, and the different classes of buildings, cost, etc.

Table Showing the Number of Permits Issued, for What Issued, and the Estimated Value of Same

MONTH	NEW BUILDINGS			ALTERATIONS AND ADDITIONS			SUMMARY	
	Wood	Brick or Fire Proof	Estimated Value	To Wood Buildings	To Brick Buildings	Estimated Value	Whole Number Permits	Total Estimated Value
January	4	1	\$ 20,600	10	1	\$ 13,125	16	\$ 33,725
February	9	..	22,025	8	5	65,730	22	87,755
March	20	2	63,797	17	6	12,590	45	76,387
April	26	1	72,929	29	2	25,260	58	98,189
May	27	..	52,535	25	3	15,875	55	68,410
June	28	2	110,830	24	4	24,120	58	134,950
July	25	2	130,355	16	5	9,634	48	139,989
August	28	2	107,058	20	11	39,200	61	146,258
September	16	3	157,720	17	4	7,575	40	165,295
October	11	4	254,525	26	3	35,715	44	290,240
November	18	..	33,105	14	6	28,015	38	61,120
December	10	..	22,365	11	..	4,170	21	26,535
Totals	222	17	\$1,047,844	217	50	\$281,009	506	\$1,328,853

NEW BUILDINGS

Permits Issued for New Buildings, Showing Number Issued Each Month
and Total for Year

Kind of Building	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
One family houses.....	2	3	9	8	5	7	13	4	9	3	6	2	71
Two fam.ho.(1 with store)	..	3	5	6	5	7	1	8	2	4	7	..	48
Three family houses.....	..	..	..	..	..	5	..	1	..	..	1	2	9
Four family houses.....	..	1	1	1	..	1	..	..	..	..	..	1	5
Five fam. ho. (with store)	1	..	..	..	4	..	..	..	..	..	..	..	5
Six family houses.....	..	..	..	..	1	..	4	3	..	2	..	1	11
Automobile houses.....	..	..	2	6	6	5	1	..	1	..	1	..	22
Barns.....	..	..	1	3	1	..	..	2	..	..	..	1	8
Brewery buildings.....	1	..	..	..	..	..	1	..	..	1	..	..	3
Business blocks.....	..	..	1	..	1	2	..	..	..	1	..	..	5
Cafe.....	..	..	..	..	..	..	1	..	..	..	..	..	1
Convent and parochial sch	..	..	..	1	..	..	..	1	..	..	..	..	2
Foundry buildings.....	..	..	..	..	..	..	..	..	1	..	..	..	1
Foundations	1	..	..	..	..	1	..	..	1	..	..	..	3
Hen houses.....	..	1	2	..	..	1	2	..	..	..	1	..	7
Laundry.....	..	..	..	..	1	..	..	..	..	..	..	..	1
Mills and mfg. bldgs....	..	..	1	..	..	..	1	1	3	1	..	..	7
Store buildings.....	..	..	..	2	1	..	..	..	..	1	..	..	4
Storage.....	..	..	..	..	2	..	2	1	..	1	1	3	10
Summer houses.....	..	..	..	..	..	..	..	1	..	..	..	..	1
Temporary stands.....	..	..	..	..	..	..	1	8	2	..	..	..	11
Warehouses .....	..	..	..	..	..	..	..	..	..	1	..	..	1
Work shops.....	..	1	..	..	..	1	..	..	..	..	1	..	3
Totals	5	9	22	27	27	30	27	30	19	15	18	10	239

SOME OF THE IMPORTANT BUILDINGS

Some of the most important manufacturing buildings erected or started during the year were the following:

Ale house, wash house and power house of the Harvard Brewing Company; Musketaquid Mill in Davidson street, five stories; McNabb Brothers laundry, Cambridge street; Boston Ice Cream Co., Meadowcroft street; Massachusetts Mills, wheel and turbine house, and also dye house building; Merrimack Mills, weaving mill and Fustian finishing building, and additions to dye house, bleach house and engine room; Massachusetts Mohair Plush Company, five-story brick mill; Bigelow Carpet Company, two large brick mills and foundation for a third mill; Burgess, Lang & Co., eight-story, fire proof, cold storage warehouse on Jackson street; Appleton Mills, dye house; also additions and alterations to Heinze Electric Company on Lawrence street, Lawrence Manufacturing Company, Belvidere Woolen Mills, United States Bunting Company and Lowell Foundry Company.

Extensive alterations and additions were made to many buildings, the most extensive being:

Wyman's Exchange, corner Central and Merrimack streets; New York Cloak and Suit Co., buildings on John street; Richardson Hotel on Middlesex street; Central Savings Bank building on Central street; Lowell Textile School on Moody street.

The following are some of the better class of residences erected during the year:

C. A. Viles, Bridge street; Lilla S. Clark, Holyrood avenue; E. F. Lamson, Beacon street; Dr. John Donahue,

Andover street; Mrs. A. A. E. Rhodes, Westford street; J. W. Robinson, Clark road; Herbert A. Wright, Clark road; Daniel E. Flack, Stevens street; Clarence Bancroft, Stevens street; Alice F. D. Pearson, Clitheroe street; Arthur W. Saunders, Georgia avenue.

Several first-class apartment houses were also erected for Mrs. Winnefred Doherty on Westford street, four families; Mrs. Mary E. Mackenzie on Edson street, four families; Harvey Green, two-family house on Clitheroe street; Mary McCullough, four-family house on High street; S. W. Hands, two-family house on Beacon street; Hector Turnbull, two-family house on Beacon street; John W. Wainwright, two three-flat houses on School street; and several others.

GAS PIPING INSPECTION.

Certificates of approval were issued for the following buildings: 2 churches, 52 one-family dwellings, 57 two-family dwellings, 7 three-family dwellings, 4 four-family dwellings, 1 five-family dwelling, 8 six-family dwellings, 1 ten-family dwelling and store, 3 one-family dwellings and store, 1 two-family dwelling and store, 1 four-family dwelling and stores, 3 five-family dwellings and stores, 2 six-family dwellings and stores, 3 stores, 1 convent, 1 automobile garage. Total of 147 new buildings, 92 old buildings and 51 buildings where alterations have been made. This makes a total of 290 buildings inspected.

The number of visits made were as follows :—325 on new houses, 371 on old houses, a total of 696 visits.

Signed,

R. J. WATTON,

Gas Piping Inspector.

CONCLUSION

In closing my report I wish to state that during the year just ended, I made 495 visits of inspection to buildings in process of erection or being altered or where complaint had been made of an alleged violation of the Building Ordinance. I have tried to the best of my ability to deal impartially in each and every case, and have endeavored to bring about a strict compliance with our building laws.

After a year's experience in enforcing the building laws, I have come to the conclusion that our ordinance in many respects is weak. While I believe the ordinance as a whole compares favorably with that of other large cities, there are several changes that could be made in it that would work to the public good and I think be more favorable to local conditions.

For instance, we have a very large "fire district." While I believe proper protection should be provided in congested districts, I feel that our present "fire district" should be divided into two sections—a primary district and a secondary district. In the first only the principal business streets should be included, and in the latter all the adjoining streets. I believe that requirements for building in the principal fire district should be very strict, that only brick and fire proof buildings should be erected, and that all old and dilapidated wooden buildings should be removed and brick structures built in their places. In the secondary district it should be possible to build wooden buildings and repair or alter existing wooden buildings, under certain conditions, such as roofs to be fire proof, buildings to be separated by brick fire walls

or a good air space allowed between buildings, and other fire protection.

Then, the gas piping section of the ordinance should be revised. I believe that all gas pipers should be licensed, and in that way this department would be better able to enforce that section of the ordinance.

Concrete is being used extensively in the construction of buildings, so much so that buildings are now being erected entirely of reinforced concrete, and also of steel and concrete, with only a light curtain wall of brick for the front of the building. There is nothing in our ordinance that treats of this kind of construction so that it is impossible to confine builders, in this line of work, to any special requirement. This department is obliged to take a builder's or owner's word for it that the structure will be erected in a proper manner and will be sufficiently strong for the purpose for which it is to be used.

During the year 1910, I shall endeavor to have our ordinance revised in such a manner as to embrace these matters above referred to and also some others which might be improved upon.

Respectfully submitted,

JAMES DOW,

Inspector of Buildings.





ANNUAL REPORT
OF THE
INSPECTOR OF MILK

LOWELL, MASS.

FOR THE
YEAR ENDING DECEMBER 31, 1909.



LOWELL, MASS.
Baker Printing Company.
1910.

REPORT

OFFICE OF THE INSPECTOR OF MILK,
Lowell, Mass., Jan. 1, 1910.

To His Honor, the Mayor, and the Honorable City Council:

GENTLEMEN: I have the honor to present the report of the Department of Milk, and Vinegar Inspection for the twelve months, beginning Jan. 1, 1909.

MILK.

2521 samples of milk have been analyzed chemically for the percentage of butter-fat and total solids. Samples which were suspected of containing added water, were closely examined, but owing to the lack of proper apparatus, no sample could be truthfully proved to contain added water. Constant watch has been kept for coloring matter and preservatives in the milk.

The average quality of milk offered for sale throughout the city has been of high grade, from the standpoint of chemical food values in fats, and solids. Three times during the Summer, owing to extremely hot and dry periods, milk fell somewhat below the usual standard. During these times the morning's milk was found to be of a little better quality than the evening's milk, owing to the fact that during the day the cows were forced to seek shade and water, and were compelled to protect themselves from flies.

COURT CASES.

Prosecutions have been made, for sale or possession with intent to sell of milk, not of good standard quality.

Total number of prosecutions.....9

Total number of convictions9

ADULTERATING.

The addition of water to milk is vigorously condemned. It is not only adulterating the milk, but is a menace to the public health, as the water which is added may be polluted or contaminated with disease organisms. The detection of added water has been made possible by the use of the Zwiss Immersion Refractometer. The milk department is not equipped with this instrument at present. The test is carried out as follows:

100 cubic centimeters of milk, at 20°C. are curdled by means of 2 c. c. of acetic acid (Sp. Gr. 1.0350) in a beaker; and the beaker, covered with a watch glass, is heated in a water bath for twenty minutes, at a temperature of 70°C. The beaker is then placed in ice water for ten minutes, and the solution filtered. The refractometer is placed directly in the clear solution (filtrate). A reading below 39 on the scale, enables one to declare that the milk was fraudulently watered.

There were 134 licenses issued to milkmen to sell milk, and 78 registration certificates were issued to store-keepers.

VINEGAR.

All samples of vinegar taken were found up to the Standard in solids and acidity. There were 53 samples examined during the year.

BUTTER.

At the present time there are 17 dealers licensed to sell Oleomargarine in the City of Lowell. Either through neglect or ignorance of the law, several dealers in Oleomargarine, were before the Court to answer the charge of selling Oleomargarine without a license.

Number of licenses to dealers conveying milk by carriage or otherwise for the purpose of sale.....	134
Number of registrations of store-keepers engaged in sale of milk	78
Oleomargarine licenses	17
Total number of licenses and registrations....	229
Received for licenses and registrations....	\$114.50

STANDING OF MILK.

The following is the average standing of the samples of milk analyzed each month:

TOTAL SOLIDS.		
	From Wagons.	From Stores.
January.....	12.98 per cent	12.72 per cent
February.....	13.26 per cent	12.84 per cent
March.. ..	13.07 per cent	12.68 per cent
April.....	12.84 per cent	
May.....	12.86 per cent	
June.....	12.29 per cent	
July.....	12.99 per cent	
August.....	12.34 per cent	
September.....	12.91 per cent	
October.....	12.94 per cent	12.87 per cent
November.....	12.97 per cent	12.86 per cent
December.....	13.55 per cent	12.70 per cent

THE AMOUNT OF MILK SOLD IN LOWELL EACH
DAY AND THE PLACES FROM WHICH IT COMES:

	Cans, 8 1-2 qts. each.
Dracut.....	757
Chelmsford....	566
Tewksbury.....	206
Pelham, N. H....	357
Westford.....	323
Lowell.....	441
Tyngsboro.....	196
Billerica.....	64
Hudson, N. H....	50
Dunstable	185
Andover.....	35
Carlisle	61
Nashua	85
	<hr/>
	3326 cans—28,271 qts.
Sold at wholesale.....	983 cans
Sold at retail	2343 cans
Skim Milk	160 cans
Buttermilk.....	18 cans
Cream.....	642 qts.

Respectfully submitted,

MELVIN F. MASTER,

Inspector of Milk and Vinegar.

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